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1740

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1987
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<sup>&</sup>lt;210> 17 <211> 719

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

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<222> (1135)
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<213> Homo sapiens

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<sup>&</sup>lt;211> 2451

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

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<210> 27
<211> 797
<212> DNA
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<222> (736)
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<222> (750)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (780)
<223> n equals a,t,g, or c
<220>
<221> SITE
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<222> (792)
<223> n equals a,t,g, or c
<400> 27
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                                                                        120
                                                                        180
acaagctgag acggatgata atatggatac aaaatctatt ctagaagaac ttcttctcaa
                                                                        240
aagatcacag caaaagaaga aaatgtcacc aawtaattac aargaacggc tttttgtttt
gaccaaaaca aacctttcct actatgaata tgacaaaatg aaaaggggca gcagaaaagg
                                                                        300
                                                                        360
wtccattgaa attaagaaaa tcagatgtgt ggagaaagta aatctcgagg agcagacgcc
tgtagagaga cmgtacccat ttcmgattgt cyataaagwt gggcttctct atgtctatgc
                                                                        420
                                                                        480
atcaaatgaa gagagccgaa gtcagtggtt gaaagcatta caaaaagaga taaggggtaa
ccccacctg ctggtcaagt accatagtgg gttcttcgtg gacgggaagt tcctgtgttg
                                                                        540
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ccagcagagc tgtaaagcag ccccaggatg taccctctgg gaagcatatg ctaatctgca
tactgcagtc aatgaagaga aacacagagt tcccaccttc ccagacagag tgctgaagat
                                                                        660
                                                                        720
acctegggea gtteetgtte teaaaatgga tgeaceatet teaagtaeea etetaeeeaa
                                                                         780
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                                                                        797
cgcaatatga cngcact
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<211> 911
<212> DNA
<213> Homo sapiens
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<222> (874)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (896)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (909)
<223> n equals a,t,g, or c
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<222> (910)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (911)
<223> n equals a,t,g, or c
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                                                                         120
                                                                         180
agcgacgttt agagaatatt gacaagattg ctcagtggca ggcttctgtc ctagactggg
agggcgagga catcctagac aggagctcgg agctgatcta cactggggag atggcctgga
                                                                         240
                                                                         300
tctaccagec ctacgscege aaccageage gggtettett cetgtttgae caccagatgg
                                                                         360
tectetgeaa gaaggaeeta ateeggagag acateetgta etacaaagge egcattgaca
                                                                         420
tggataaata tgaggtagtt gacattgagg atggcagaga tgatgacttc aatgtcagca
tgaagaatgc cittaagctt cacaacaagg agactgagga gatacatctg ttctttgcca
                                                                         480
agaagctgga ggaaaaaata cgctggctca gggctttcag agaagagagg aaaatggtac
                                                                         540
                                                                         600
aggaagatga aaaaattggc tttgaaattt ctgaaaacca gaagaggcag gctgcaatga
                                                                         660
ctgtgagaaa agtccctaag caaaaaggtg tcaactctgc ccgctcagtt cctccttcct
                                                                         720
acceaceace geaggaeeeg ttaaaceaeg geeagtaeet ggteeeegae ggeategete
                                                                         780
agtcgcaggt ctttgagttc accgaaccca agcgcagcca gtcaccattc tggcaaaact
                                                                         840
tcagcaggtt aacccccttc aaaaaatgat acctacaggg aggcagataa ttttaaaata
                                                                         900
aagtaaataa aattawaaaa aaaaaaaagg gggnccgttt ttaaagggtt ccaagnttac
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<223> n equals a,t,g, or c

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911
gttccccgnn n
<210> 29
<211> 2047
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2042)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2046)
<223> n equals a,t,g, or c
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agaggagcac gcagctgaac aagaagagag ccatccccaa tcagggggag atcctggtga
tccgcagggc tggctgacca tcaacaacat cagcctgatg aaaggcggct ccaaggagta
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                                                                     240
ctggtttgtg ctgactgccg agtcactgtc ctggtacaag gatgaggagg agaaagagaa
gaagtacatg ctgcctctgg acaacctcaa gatccgtgat gtggagaagg gcttcatgtc
                                                                     300
                                                                     360
caacaagcac gtcttcgcca tcttcaacac ggagcagaga aacgtctaca aggacctgcg
                                                                     420
gcaratcgag ctggcctgtr actcccagga agacgtggac agctggaagg cctcgttcct
ccragctggc gtctaccccg agaaggacca ggcagaaaac gaggatgggg cccaggagaa
                                                                     480
                                                                     540
caccttctcc atggaccccc aactggagcg gcaggtggag accattcgca acctggtgga
ctcatacgtg gccatcatca acaagtccat ccgcgacctc atgccaaaga ccatcatgca
                                                                     600
                                                                     660
cctcatgatc aacaatacga aggccttcat ccaccacgag ctgctggcct acctatactc
ctcggcagac cagagcagcc tcatggagga gtcggctgac caggcacagc ggcgggacga
                                                                     720
                                                                     780
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cagcactgtg tccacgcctg tacccccgcc tgtcgatgac acctggctcc agagcgccag
                                                                     840
                                                                     900
caqccacage eccaetecae agegeegace ggtgtecage atacaeecee etggeeggee
                                                                     960
cccagcagtg aggggccca ctccagggcc cccctgatt cctgttcccg tgggggcagc
                                                                    1020
agectectte teggegeece caateceate eeggeetgga eeceagageg tgtttgeeaa
cagtgacctc ttcccagccc cgcctcagat cccatctcgg ccagttcgga tycccccagg
                                                                    1080
gattcccca ggagtgccca gcagaagacc ccctgctgcg sccagccggc ccaccattat
                                                                    1140
ccgcccagcc gagccatccc tgctcgacta ggcctcgagg ggggcgtgct ctcggggggg
                                                                    1200
                                                                    1260
cctcacgcac ccgcggcgca ggarcttcag tggtctgggg ccctccgccg cccctatgct
                                                                    1320
gggaccaggc teccagtggg cagecetgge etetteetta aegetggeee eggteeargg
coggecetty tyectgyety gacacegeae tyegeaaagy gyccetygay etecagyeay
                                                                    1380
                                                                    1440
ggggcgctgg ggtgttgcac tttggggggat ggagtctcag ggtggcagag gggggaccwg
                                                                    1500
aaccettgac accatectga atgaggggte cageetgggg gggaetetae caaggtette
                                                                    1560
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acatececag geettgetgg ggtgeagggg tatateaact teceattage aggageteee
                                                                    1620
                                                                    1680
caqcgqcaaq cctggcccag tgggctcggt agtgcccagc tggcaggcct gaggtgtaca
tagtccttcc cggccatatt aaccacacag cctgagcctg gcccagcctc ggctgccaga
                                                                    1740
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ctectectee tgggteece agggtggetg ggettggget atgtgggtgg tggtggeggg
                                                                    1860
                                                                    1920
gggtettggg ggeeteteag etecegeeca tgeeteeetg atgggtggge ceagggegge
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                                                                    2040
2047
angggng
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<213> Homo sapiens
<220>
<221> SITE
<222> (730)
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<221> SITE
<222> (746)
<223> n equals a,t,g, or c
<220>
<221> SITE
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<223> n equals a,t,g, or c
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<221> SITE
<222> (825)
<223> n equals a,t,g, or c
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agggacacac getetactgg tacegecage eccaggatga gaaggetgag ggeeteatea
                                                                         180
atgtctccaa ctatagtctg gaaagtggac atgatcagaa gaagaaatat gtgtttcagc
tcacccatga tgtgtacaaa cccttcatct tcgctgctga taccctgaca gatctgagca
                                                                         240
                                                                         300
tgtgggtgcg tcatctcatt acctgcatct ccaagtacca gtctccaggc cgggcccccc
caccccgaga ggaagactgc tacagtgaga ccgaagcaga ggacccggac gatgaggctg
                                                                         360
ggtcccactc agcctcgccc agccctgctc aagctgggag tcccctccat ggagacacat
                                                                         420
cacctgcagc caccccaca cagcgcagcc cacggacctc ctttggctct ctgacagaca
                                                                         480
gcagtgaaga ggcactggaa ggaatggtac gggggctgag gcagggtggc gtgtccctcc
                                                                         540
                                                                         600
taggccagcc acagccctg acccaggaac agtggcggag ctctttcatg cggcgcaacc
                                                                         660
gagaccetca geteaatgag egagtgeace gtgtgeggge getaeagage acaeteaagg
                                                                         720
tcagctgggg ggtgggcaca gcaagggact aggctctggg cttcaggctt tggtttgcgg
ctgtcacctn caccetgggc accagnacte cagactcage teeggaceet gggettaaca
                                                                         780
                                                                         840
gctgacagcg ngcttcagct gtggactggg ccaggctctg ggttncgagt ggggatttga
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                                                                         876
<210> 31
<211> 567
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (236)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (238)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (542)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (556)
<223> n equals a,t,g, or c
<400> 31
                                                                          60
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gtgcatgtaa agaagtatct ttgcctgctg tataactgtg tgtatctcat tttcctcaca
                                                                         180
                                                                         240
gtacttattg attccattta caaagtgact gagggccggc agtctgaaat attccncntt
acaagctgag gggaacttcg accccagctg ctgcttcacc atctaccatg gcaaccacat
                                                                         300
                                                                         360
ggagtccctg gacctcatca cctccaaccc cgaggaggcc cgcacctgga tcacaggcct
                                                                         420
caagtacctg atggctggca tcagtgatga agactccctt gccaaaaggc agaggaccca
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480
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tattgaagag atacatcagc tgatgcataa actgaatgtt aatctgcccc gaagaaaagt
                                                                        540
                                                                         567
cngacaaatg tttcangaag ccgacac
<210> 32
<211> 957
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (780)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (893)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (899)
<223> n equals a,t,g, or c
<220>
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<222> (952)
<223> n equals a,t,g, or c
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ccttctaaag cctcgcccag sgccgccgaa gcagcttcac ctctccaact ttctcccacc
                                                                         180
gactgcttgt cttgaccctg ccctccaccc tccccagage cacttcgggt gegegetett
gggtaaaggg ggggtcaccg gctgtctggg atggcttcca attttaatga catagtgaag
                                                                         240
                                                                         300
caagggtacg tgaggatccg gagcagacgc ctcgggattt atcagcgatg ctggttagta
ttcaagaaag cttcaagcaa aggtccaaaa agactggaga aattttctga tgaacgtgct
                                                                         360
gcatatttca ggtgttatca taaggttaca gaactcaata atgtgaagaa cgtagctcga
                                                                         420
                                                                         480
ttgccaaaaa gcaccaagaa acatgccata gggatttatt tcaatgacga tacctccaag
                                                                         540
actititgcti gcgaatcaga tcttgaggct gatgagtggt gcaaagtact ccagatggag
tgtgtaggaa cacggatcaa tgacatcagc cttggagagc ctgacttact ggccactggg
                                                                         600
                                                                         660
qttqaqaqaq aacaqaqtqa gagattcaat gtgtatttga tgccatctcc taacttagat
                                                                         720
gtacatggcg aatgtgcctt gcagattaca tatgagtata tctgtctttg ggacgtccag
aatcccagag tcaaactcat ctcttggccg ctaagcgccc tgcggcggtt atgggacgtn
                                                                         780
                                                                         840
gatactacgt ggttcacttt tgagggcagg gaggatgtgt ngagactggg tgaaggggct
                                                                         900
gtttatcttt tcagacccga gacggggagg gccatctwtt caggaaagtc cantctggnt
                                                                         957
gccttggccc ataggccgag gcaggcacga gcgtttgcta acagagtgtt gnaaaaa
<210> 33
<211> 1070
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (968)
<223> n equals a,t,g, or c
<400> 33
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aaggtgctgc ccatcctgca cgggctgggc acggacagcc acctggtggt gaagaagcac
                                                                          180
                                                                          240
caggccatgg aggccatgct gctgtacctg gccagccgtg tcggtgacac caagcatggc
atgatgaagt toogtgagga cogcagcoto otgggootgg gootgoooto aggtggotto cacgatogot acttoatoot caacagcago tgottgoggo totacaagga ggtcoggagt
                                                                          300
                                                                          360
                                                                          420
caccggcctg agaaggagtg gcctattaag agtctcaaag tctacctggg agtgaagaag
                                                                          480
aaactcaggc caccacctg ctggggcttc acagtggtgc atgagacaga gaaacatgag
                                                                          540
aagcagcagt ggtacctctg ctgtgacaca cagatggagc tccgggagtg gttcgctacc
tttctgtttg tgcagcatga cggcctggtg tggccctcag agccctcacg cgtgtcccgg
                                                                          600
                                                                          660
gcagtgcctg aggtccggct gggtagtgtg tcactgatcc cccttcgagg tagtgaaaat
                                                                          720
gaaatgcgcc ggagtgtggc tgccttcacc gcggaccctc tgtctcttct gcgcaacgtc
                                                                          780
tgagcacagg ageccatect tggetetagg atteegeege tggaageett etgtteagae
                                                                          840
accccttatg ctccaaggcc tgatgtgagc cagcgggggg tgcatgggaa actgcacccc
                                                                          900
acaacccaca tcctccatcc tgactgcagc atggggttcc ccggcagggt gggaggcagc
                                                                          960
aggggtcagc ctgggcagga acctctycca actctgtcca ggtgttcaga cctcttggsc
caacctgnty amcccaacgg gttcactgtc cttgtggggc tkgaragatg ggcataagtc
                                                                          1020
                                                                          1070
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<210> 34
<211> 402
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (94)
<223> n equals a,t,g, or c
<400> 34
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ctcagcagcc tkagccccaa gaagcccacc cggnaggtaa acaagatcca cgcctttggg
aagagaggca atgcgctcag gagggatccc aaccttcccg tgcacatccg aggctggctt
                                                                           180
                                                                           240
cataagcagg acagctcggg gctccgtctc tggaaacgcc gctggttcgt cctctccggc
                                                                           300
cattgcctct tttattacaa ggacagccgc gagagagtgt cctaggcagc gtcctgctcc
                                                                           360
ccagctacaa tattagacca gatgggccgg gagccccga gggagtccgc ttcaccttca
                                                                           402
ccgcagagca cccgggcatg aggacctacg ttttggccgc tg
<210> 35
<211> 353
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (220)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (334)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (347)
<223> n equals a,t,g, or c
<400> 35
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ggatcatgaa caactttatc ctcctggrag aacagctcat caagaaatcc caacaaaaga
                                                                           180
gaagaacttc teeetegaac tttaaagtee gettetttgt gttaaccaaa geeageetgg
                                                                           240
catactttga agatcgtcat gggaagaagc gcacgctgan aggggtccat tgagctctcc
                                                                           300
cgaatcaaat gtgttgagrt tgtgaaaagt gacatcagca tcccatgcca ctataaatac
ccgtttcagg tggtgcatga caacttacct cctnttatgg tgtttgnttc cag
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<210> 36
<211> 938
<212> DNA
<213> Homo sapiens
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<221> SITE
<222> (877)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (909)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (931)
<223> n equals a,t,g, or c
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accttccaag teetggeate teaatgeate tgggaageta cetgeattaa gteaggaetg
                                                                         180
agcacacagg tgaactccag aaagaagaag ctatggccgc agtgattctg gagagcatct
                                                                         240
ttctgaagcg atcccaacag aaaaagaaaa catcacctct aaacttcaag aagcgcctgt
                                                                         300
ttctcttgac cgtgcacaaa ctctcctact atgagtatga ctttgaacgt gggagaagag
gcagtaagaa gggttcaata gatgttgaga agatcacttg tgttgaaaca gtggttcctg
                                                                         360
                                                                         420
aaaaaaaatcc tcctccagaa agacagattc cgagaagagg tgaagagtcc agtgaaatgg
                                                                         480
agcaaatttc aatcattgaa aggttccctt atcccttcca ggttgtatat gatgaarggc
                                                                         540
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                                                                         600
                                                                         660
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acaggaatgg aagettaaaa eetgggagtt etcaeeggaa gacaaaaaaag eetetteeee
                                                                         720
                                                                         780
caacgcctga ggaggaccag atcttgaaaa agccamtacc gcctgagcca gcagcagcac
cagtctccac aagtggagct ggaaaaaggt tgtggccctt tatggattac atgccaatga
                                                                         840
                                                                         900
atgccaaatg attctacagc tgcggaaggt ggatgantat tttatcttgg gaggaaagca
                                                                         938
actttaccng gtggagagca cgagataaaa nggggcag
<210> 37
<211> 206
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (164)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (203)
<223> n equals a,t,g, or c
<400> 37
                                                                          60
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ctgagattaa agccgcgtgg gtgaatgaaa ttcggaaagt gctgaccagc cagctgcagg
                                                                         120
                                                                         180
cttgtagaga agccagccag caccgggcgc tggagcagtc acanagcctg cccctgccgg
                                                                         206
ccccgaccag caccagtccc tcnaga
<210> 38
<211> 494
<212> DNA
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<213> Homo sapiens
<220>
<221> SITE
<222> (230)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (295)
<223> n equals a,t,g, or c
<400> 38
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                                                                         120
                                                                         180
tccctcttgc tcccaggcac gatccctgac ccgctacctg ccaatccgga aggaggactt
                                                                         240
tracctgaag acacatattg agtcatcggg ccatggtgtt gatacctgcn tgcacgtggt
                                                                         300
gctcagcagc aaggtctgcc gtggctactt ggtcaagatg ggcggcaaga ttaantcatg
gaagaagcgc tggtttgttt tcgaccggct caagcgcacc ctttcctatt atgtggacaa
                                                                         360
                                                                         420
gcatgagacg aagctgaagg gagtcatcta tttccaggcc attgaggaag tgtactacga
ccacctgcgc agtgcagcca agagcccgaa cccagccctc accttctgcg taaagaccca
                                                                         480
                                                                         494
tgaccggctg tact
<210> 39
<211> 434
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
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gcctgtccag ccagcatgga accaaagcgg atcagagagg gctaccttgt gaagaagggg
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<213> Homo sapiens
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Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu
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Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Asp Ser Met
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Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu Gln Pro Ser Ser Ala Ser
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Ser Leu Leu Thr Ala His Ala Ala Ser Ser Ser Leu Pro Arg Asp Asp Pro Asn Thr Asn Ala Val Ala Thr Glu Glu Thr Arg Ser Glu Ser Glu Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu Ser Asn Cys Glu Thr Gly Arg Leu His His Thr Ser Leu Pro Thr Arg Cys Asp Ser Trp Ser Asn Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe Asp Asp Val Phe Val Asp Cys Leu Gln Pro Leu Pro Ser Ser His Leu Val His Pro Ser Cys His 230 Gly Ser Gly Ala Gln Glu Val Pro Ser Ser Arg Pro Gln Ala Ala Leu Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro Arg Asp His Leu Ser Ser 265 Ser Pro Leu Leu Glu Ser Ser Leu Ser Ser Thr Ile Gln Val Asp Lys Asn Gln Gly Ser Leu Pro Cys Gly Ala Lys Glu Leu Asp Ile Met Ser Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser Glu Arg 310 315 Arg Gln Glu Glu Trp Ser Thr His Ser Gly Ser Lys Lys Pro Glu Cys Thr Leu Val Pro Arg Arg Ile Ser Leu Ser Gly Leu Asp Asn Met Arg Thr Trp Lys Ala Asp Val Glu Gly Gln Ser Leu Arg His Arg Asp Lys 360 Arg Leu Ser Leu Asn Leu Pro Cys Arg Phe Ser Pro Met Tyr Pro Thr Ala Ser Ala Ser Ile Glu Asp Ser Tyr Val Pro Met Ser Pro Gln Ala 395 Gly Ala Ser Gly Leu Gly Pro His Cys Ser Pro Asp Asp Tyr Ile Pro 410 Met Asn Ser Gly Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala Asn 425 Leu Glu Pro Pro Pro Val Asn Arg Asp Leu Lys Pro Gln Arg Lys Ser Arg Pro Pro Pro Leu Asp Leu Arg Asn Leu Ser Ile Ile Arg Glu His 455 Ala Ser Leu Thr Arg Thr Arg Thr Val Pro Cys Ser Arg Thr Ser Phe Leu Ser Pro Glu Arg Asn Gly Ile Asn Ser Ala Arg Phe Phe Ala Asn

Pro Val Ser Arg Glu Asp Glu Glu Ser Tyr Ile Glu Met Glu Glu His 500 505 510

Arg Thr Ala Ser Ser Leu Ser Ser Gly Ala Leu Thr Trp Thr Lys Lys 515 520 525

Phe Ser Leu Asp Tyr Leu Ala Leu Asp Phe Asn Ser Ala Ser Pro Ala 530 535 540

Pro Met Gln Gln Lys Leu Leu Ser Glu Glu Gln Arg Val Asp Tyr 545 550 560

Val Gln Val Asp Glu Gln Lys Thr Gln Ala Leu Gln Ser Thr Lys Gln
565 570 575

Glu Trp Thr Asp Glu Arg Gln Ser Lys Val 580 585

<210> 65

<211> 416

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (292)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 65

Arg Val Ser Tyr Ser His Gly Leu Arg Lys Glu Leu Leu Lys Ser Ile 1 5 10 15

Trp Tyr Ala Phe Thr Ala Leu Asp Val Glu Lys Ser Gly Lys Val Ser 20 25 30

Lys Ser Gln Leu Lys Val Leu Ser His Asn Leu Tyr Thr Val Leu His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ile Pro His Asp Pro Val Ala Leu Glu Glu His Phe Arg Asp Asp Asp 50 55 60

Asp Gly Pro Val Ser Ser Gln Gly Tyr Met Pro Tyr Leu Asn Lys Tyr 65 70 75 80

Ile Leu Asp Lys Val Glu Glu Gly Ala Phe Val Lys Glu His Phe Asp 85 90 95

Glu Leu Cys Trp Thr Leu Thr Ala Lys Lys Asn Tyr Arg Ala Asp Ser 100 105 110

Asn Gly Asn Ser Met Leu Ser Asn Gln Asp Ala Phe Arg Leu Trp Cys 115 120 125

Leu Phe Asn Phe Leu Ser Glu Asp Lys Tyr Pro Leu Ile Met Val Pro 130 135 140

Asp Glu Val Glu Tyr Leu Leu Lys Lys Val Leu Ser Ser Met Ser Leu 145 150 155 160

Glu Val Ser Leu Gly Glu Leu Glu Glu Leu Leu Ala Gln Glu Ala Gln 165 170 175

Val Ala Gln Thr Thr Gly Gly Leu Ser Val Trp Gln Phe Leu Glu Leu 180 185 190 Phe Asn Ser Gly Arg Cys Leu Arg Gly Val Gly Arg Asp Thr Leu Ser Met Ala Ile His Glu Val Tyr Gln Glu Leu Ile Gln Asp Val Leu Lys 215 Gln Gly Tyr Leu Trp Lys Arg Gly His Leu Arg Arg Asn Trp Ala Glu Arg Trp Phe Gln Leu Gln Pro Ser Cys Leu Cys Tyr Phe Gly Ser Glu Glu Cys Lys Glu Lys Arg Gly Ile Ile Pro Leu Asp Ala His Cys Cys Val Glu Val Leu Pro Asp Arg Asp Gly Lys Arg Cys Met Phe Cys Val Lys Thr Ala Xaa Arg Thr Tyr Glu Met Ser Ala Ser Asp Thr Arg Gln Arg Gln Glu Trp Thr Ala Ala Ile Gln Met Ala Ile Arg Leu Gln Ala 305 310 315 Glu Gly Lys Thr Ser Leu His Lys Asp Leu Lys Gln Lys Arg Arg Glu Gln Arg Glu Gln Arg Glu Arg Arg Arg Ala Ala Arg Lys Arg Ser Cys Cys Gly Cys Ser Ser Cys Arg Arg Arg Ser Gly Ser Cys Arg Ser 355 360 365 Trp Ser Cys Cys Arg Arg Thr Ala Gly Arg Ala Ala Ala Gly Gly Gly Gly Thr Ala Pro Gln Pro Ala Pro Arg Ala Ala Ala Gly Ala Arg Gly Pro Thr Ala Arg Gly Gly Ala Gly Pro Gly Leu His Ala Gly 410

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<210> 66
<211> 166
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (162)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 66
Met Ser Ser Ser Tyr Glu Ser Tyr Asp Glu Glu Glu Glu Asp Gly Lys
Gly Lys Lys Thr Arg His Gln Trp Pro Ser Glu Glu Ala Ser Met Asp
Leu Val Lys Asp Ala Lys Ile Cys Ala Phe Leu Leu Arg Lys Lys Arg
Phe Gly Gln Trp Thr Lys Leu Leu Cys Val Ile Lys Asp Thr Lys Leu
Leu Cys Tyr Lys Ser Ser Lys Asp Gln Gln Pro Gln Met Glu Leu Pro
Leu Gln Gly Cys Asn Ile Thr Tyr Ile Pro Lys Asp Ser Lys Lys
Lys His Glu Leu Lys Ile Thr Gln Gln Gly Thr Asp Pro Leu Val Leu
Ala Val Gln Ser Lys Glu Gln Ala Glu Gln Trp Leu Lys Val Ile Lys
                            120
Glu Ala Tyr Ser Gly Cys Ser Gly Pro Val Asp Ser Xaa Cys Pro Pro
Pro Pro Ser Ser Pro Val His Lys Ala Glu Leu Glu Lys Asn Cys Leu
Arg Xaa Xaa Gln Leu Lys
                165
<210> 67
<211> 446
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (392)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (405)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 67
Ser Thr Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Glu Ser Leu Arg
                                      10
Gly Asp Ile Phe Gln Lys Phe Met Glu Ser Asp Lys Phe Thr Arg Phe
Cys Gln Trp Lys Asn Val Glu Leu Asn Ile His Leu Thr Met Asn Glu
```

Phe Ser Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr

55 50 Gly Cys Arg Lys Ala Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn  $85 \hspace{1cm} 90 \hspace{1cm} 95$ Glu Arg Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe Ile Val Cys Met Thr Tyr Ala Phe His Thr Pro Asp Lys Leu Cys Phe Ile 120 Leu Asp Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His Gly Val Phe Ser Glu Lys Glu Met Arg Phe Tyr Ala Thr Glu Ile Ile Leu Gly Leu Glu His Met His Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Pro Ala Asn Ile Leu Leu Asp Glu His Gly His Ala Arg Ile Ser Asp Leu Gly Leu Ala Cys Asp Phe Ser Lys Lys Pro His Ala Ser 200 Val Gly Thr His Gly Tyr Met Ala Pro Glu Val Leu Gln Lys Gly Thr Ala Tyr Asp Ser Ser Ala Asp Trp Phe Ser Leu Gly Cys Met Leu Phe Lys Leu Leu Arg Gly His Ser Pro Phe Arg Gln His Lys Thr Lys Asp Lys His Glu Ile Asp Arg Met Thr Leu Thr Val Asn Val Glu Leu Pro Asp Thr Phe Ser Pro Glu Leu Lys Ser Leu Leu Glu Gly Leu Leu Gln 280 Arg Asp Val Ser Lys Arg Leu Gly Cys His Gly Gly Gly Ser Gln Glu 295 Val Lys Glu His Ser Phe Phe Lys Gly Val Asp Trp Gln His Val Tyr Leu Gln Lys Tyr Pro Pro Pro Leu Ile Pro Pro Arg Gly Glu Val Asn Ala Ala Asp Ala Phe Asp Ile Gly Ser Phe Asp Glu Glu Asp Thr Lys Gly Ile Lys Leu Leu Asp Cys Asp Gln Glu Leu Tyr Lys Asn Phe Pro 360 Leu Val Ile Ser Glu Arg Trp Gln Gln Glu Val Thr Xaa Thr Val Tyr Glu Ala Val Asn Ala Asp Thr Xaa Lys Ile Glu Ala Arg Lys Arg Ala Lys Asn Lys Gln Xaa Gly His Glu Glu Asp Tyr Ala Leu Gly Lys Asp

405 410 415 Cys Ile Met His Gly Tyr Met Leu Lys Leu Gly Asn Pro Phe Leu Thr Gln Trp Gln Arg Arg Asp Phe Tyr Leu Phe Pro Asn Ser Leu 440 <210> 68 <211> 244 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (195) <223> Xaa equals any of the naturally occurring L-amino acids <400> 68 Ser Xaa Asp Lys Val Pro Pro Asp Ser Ala Leu Glu Ser Pro Phe Glu 10 15 Glu Met Ala Leu Val Arg Gly Gly Trp Leu Trp Arg Gln Ser Ser Ile Leu Arg Arg Trp Lys Arg Asn Trp Phe Ala Leu Trp Leu Asp Gly Thr Leu Gly Tyr Tyr His Asp Glu Thr Ala Gln Asp Glu Glu Asp Arg Val 55 Leu Ile His Phe Asn Val Arg Asp Ile Lys Ile Gly Pro Glu Cys His Asp Val Gln Pro Pro Glu Gly Arg Ser Arg Asp Gly Leu Leu Thr Val Asn Leu Arg Glu Gly Gly Arg Leu His Leu Cys Ala Glu Thr Lys Asp 100 105 Asp Ala Leu Ala Trp Lys Thr Ala Leu Leu Glu Ala Asn Ser Thr Pro Val Arg Val Tyr Ser Pro Tyr Gln Asp Tyr Tyr Glu Val Val Pro Pro Asn Ala His Glu Ala Thr Tyr Val Arg Ser Tyr Tyr Gly Pro Pro Tyr 155 145 150 160 Ala Gly Pro Gly Val Thr His Val Ile Val Arg Glu Asp Pro Cys Tyr

Ser Ala Gly Ala Pro Leu Ala Met Gly Met Leu Ala Gly Xaa Pro Leu 180 185 190

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Gly Gly Xaa Gly Leu Ala His Val Val Ala Leu Leu Val Leu Ser Pro
Gly Thr Arg Ser Thr Asp Pro Cys Ala Trp Ile Ala Arg Leu Leu Phe
    210
                         215
Leu Leu Asp Pro Ile Leu Tyr His Pro Ser Pro Val Pro Leu Trp Pro
                    230
                                         235
                                                              240
Tyr Pro Leu His
<210> 69
<211> 378
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (106)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (179)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (308)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (366)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (375)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 69
Glu Leu Asp Pro Lys Cys Arg Gly Leu Pro Phe Ser Ser Phe Leu Ile
  1
                                      10
Leu Pro Phe Gln Arg Ile Thr Arg Leu Lys Leu Leu Val Gln Asn Ile
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Leu Lys Arg Val Glu Glu Arg Ser Glu Arg Glu Cys Thr Ala Leu Asp

		35					40					45			
Ala	His 50	Lys	Glu	Leu	Glu	Met 55	Val	Val	Lys	Ala	Cys 60	Asn	Glu	Gly	Val
Arg 65	Lys	Met	Ser	Arg	Thr 70	Glu	Gln	Met	Ile	Ser 75	Ile	Gln	Lys	Lys	Met 80
Xaa	Phe	Lys	Ile	Xaa 85	Ser	Val	Pro	Ile	Ile 90	Ser	His	Ser	Arg	Trp 95	Leu
Leu	Lys	Gln	Gly 100	Glu	Leu	Gln	Gln	Xaa 105	Xaa	Gly	Pro	Lys	Thr 110	Ser	Arg
Thr	Leu	Arg 115	Thr	Lys	Lys	Leu	Phe 120	His	Glu	Ile	Tyr	Leu 125	Phe	Leu	Phe
Asn	Asp 130	Leu	Leu	Val	Ile	Cys 135	Arg	Gln	Ile	Pro	Gly 140	Asp	Lys	Tyr	Gln
Val 145	Phe	Asp	Ser	Ala	Pro 150	Arg	Gly	Leu	Leu	Arg 155	Val	Glu	Glu	Leu	Glu 160
Asp	Gln	Gly	Gln	Thr 165	Leu	Ala	Asn	Val	Phe 170	Ile	Leu	Arg	Leu	Leu 175	Glu
Asn	Ala	Xaa	Asp 180	Arg	Glu	Ala	Thr	Tyr 185	Met	Leu	Lys	Ala	Ser 190	Ser	Glr
Ser	Glu	Met 195	Lys	Arg	Trp	Met	Thr 200	Ser	Leu	Ala	Pro	Asn 205	Arg	Arg	Thr
Lys	Phe 210	Val	Ser	Phe	Thr	Ser 215	Arg	Leu	Leu	Asp	Cys 220	Pro	Gln	Val	Glr
Cys 225	Val	His	Pro	Tyr	Val 230	Ala	Gln	Gln	Pro	Asp 235	Glu	Leu	Thr	Leu	Glu 240
Leu	Ala	Asp	Ile	Leu 245	Asn	Ile	Leu	Asp	Lys 250	Thr	Asp	Asp	Gly	Trp 255	Ile
Phe	Gly	Glu	Arg 260	Leu	His	Asp	Gln	Glu 265	Arg	Gly	Trp	Phe	Pro 270	Ser	Ser
Met	Thr	Glu 275	Glu	Ile	Leu	Asn	Pro 280	Lys	Ile	Arg	Ser	Gln 285	Asn	Leu	Lys
Glu	Cys 290	Phe	Arg	Val	His	Lys 295	Met	Asp	Asp	Pro	Gln 300	Arg	Ser	Arg	Thr
Arg 305	Thr	Ala	Xaa	Ser	Trp 310	Ala	Ala	Gly	Ile	Gly 315	Asn	Asp	Pro	His	Pro 320
Gly	Gly	Gln	Arg	Glu 325	Gln	Gly	Leu	His	Glu 330	Thr	Pro	Thr	Glu	Gly 335	Gly
Gly	Gly	Ala	Leu 340	Gly	Ser	Thr	Gly	Gln 345	His	Leu	Pro	Arg	Trp 350	Gln	Asr
Leu	Ala	Trp 355	Gly	Ala	Arg	Pro	Ser 360	Ser	Leu	Pro	Thr	His 365	Xaa	Cys	Sei
Cys	Val	Leu	Ala	Pro	Cys	Xaa	Gln	Thr	Gly						

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<210> 70
<211> 205
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 70
Ala Arg Ala Ala Trp Pro Gly Val Asp Ala Val Ala Glu Pro Arg Gly
Ala Gly Arg Xaa Trp Arg Thr Ala Gly Pro Arg Arg Thr Arg Met Glu
Glu Glu Gly Val Lys Glu Xaa Gly Glu Lys Pro Arg Gly Ala Gln Met
Val Asp Lys Ala Gly Trp Ile Lys Lys Ser Ser Gly Gly Leu Leu Gly
Phe Trp Lys Asp Arg Tyr Leu Leu Cys Gln Ala Gln Leu Leu Val 65 70 75 80
Tyr Glu Asn Glu Asp Asp Gln Lys Cys Val Glu Thr Val Glu Leu Gly
Ser Tyr Glu Lys Cys Gln Asp Leu Arg Ala Leu Leu Lys Arg Lys His
Arg Phe Ile Leu Leu Arg Ser Pro Gly Asn Lys Val Ser Asp Ile Lys
Phe Gln Ala Pro Thr Gly Glu Glu Lys Glu Ser Trp Ile Lys Ala Leu
Asn Glu Gly Ile Asn Arg Gly Lys Asn Lys Ala Phe Asp Glu Val Lys
145
Val Asp Lys Ser Cys Ala Leu Glu His Val Thr Arg Asp Arg Val Arg
Gly Gly Gln Arg Arg Pro Pro Thr Arg Val His Leu Lys Glu Val
                                 185
Ala Ser Ala Ala Ser Asp Gly Leu Leu Arg Leu Gly Ser
                            200
<210> 71
<211> 118
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 71
Trp Glu Pro Phe Pro Ser Glu Gln Gln Pro Cys Pro Ala Ser Val Leu
Ser Ser Gln Gln Gly Lys Ser Ile Ser Leu Ile Met Glu Glu Asn Asn
Asp Ser Thr Glu Asn Pro Gln Gln Gly Gln Gly Arg Gln Asn Ala Ile
Lys Cys Gly Trp Leu Arg Lys Gln Gly Gly Phe Val Lys Thr Trp His
Thr Arg Trp Phe Val Leu Lys Gly Asp Gln Leu Tyr Tyr Phe Lys Asp
Glu Asp Glu Thr Lys Pro Leu Glu Tyr Leu Thr Thr Ser Gly Asp Ser
Val Trp Leu Val Xaa Ser Trp Gly Arg Tyr His Arg Tyr Leu Val Gly
                                105
Arg Ser Arg Gly Ala Phe
        115
<210> 72
<211> 361
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (295)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 72
Leu Ser Cys Ser Gly Ile His Arg Asn Ile Pro Gln Val Ser Lys Val
Lys Ser Val Arg Leu Asp Ala Trp Xaa Glu Ala Gln Val Glu Phe Met
Ala Ser His Gly Asn Asp Ala Ala Arg Ala Arg Phe Xaa Ser Lys Val
Pro Ser Phe Tyr Tyr Arg Pro Thr Pro Ser Asp Cys Gln Leu Leu Arg
Glu Gln Trp Ile Arg Ala Lys Tyr Glu Arg Gln Glu Phe Ile Tyr Pro
Glu Lys Gln Glu Pro Tyr Ser Ala Gly Tyr Arg Glu Gly Phe Leu Trp
Lys Arg Gly Arg Asp Asn Gly Gln Phe Leu Ser Arg Lys Phe Val Leu
```

<222> (289)

100 105 110 Thr Glu Arg Glu Gly Ala Leu Lys Tyr Phe Asn Arg Asn Asp Ala Lys 120 Glu Pro Lys Ala Val Met Lys Ile Glu His Leu Asn Ala Thr Phe Gln Pro Ala Lys Ile Gly His Pro His Gly Leu Gln Val Thr Tyr Leu Lys 150 Asp Asn Ser Thr Arg Asn Ile Phe Ile Tyr His Glu Asp Gly Lys Glu Ile Val Asp Trp Phe Asn Ala Leu Arg Ala Ala Arg Phe His Tyr Leu Gln Val Ala Phe Pro Gly Ala Ser Asp Ala Asp Leu Val Pro Lys Leu Ser Arg Asn Tyr Leu Lys Glu Gly Tyr Met Glu Lys Thr Gly Pro Lys Gln Thr Glu Gly Phe Arg Lys Arg Trp Phe Thr Met Asp Asp Arg Arg Leu Met Tyr Phe Lys Asp Pro Leu Asp Ala Phe Ala Arg Gly Glu Val Phe Ile Gly Ser Lys Glu Ser Gly Tyr Thr Val Leu His Gly Phe Pro Pro Ser Thr Gln Gly His His Trp Pro His Gly Ile Thr Ile Val Thr Pro Asp Arg Lys Phe Leu Xaa Ala Cys Glu Thr Glu Ser Asp Gln Arg 295 Glu Trp Val Ala Ala Phe Gln Lys Ala Val Asp Arg Pro Met Leu Pro Gln Glu Tyr Ala Trp Arg Arg Thr Ser Ser Ile Asn Leu Ser Glu Cys 330 Gly Trp Arg Thr Thr Asp Ile Gly Leu Thr Val Ala Gly Arg Arg Gly 345 Pro Val Asp Gly Gly Ala Leu Ala Ser <210> 73 <211> 323 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (286) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
<221> SITE
<222> (299)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (303)
<223> Xaa equals any of the naturally occurring L-amino acids
Ser Thr His Ala Ser Ala Gly Leu Gly Gly Arg Arg Pro Arg Leu Arg
Tyr Arg Cys Leu Ala Val Gl<br/>n Pro Gly Arg Leu Pro Ala Arg Pro Pro 20 \phantom{-}25\phantom{+} 30
Pro Asp Gln Gly Pro Arg Pro Val Pro Pro Leu Ser Arg Pro Ala Lys
Cys Arg Pro Pro Pro Ser Leu Arg Arg Ser Val Gly Ser Trp Lys Met
Leu Lys Ser Phe Trp Gln Lys Val Cys Gly Met Arg Thr Ser Ala Leu 65 70 75 80
Leu Gln Gly Ile Thr Asp His Ile Leu Arg Gly Phe Gln Gln Ile Lys
Ala Arg Tyr Tyr Trp Asp Phe Gln Pro Gln Gly Gly Asp Ile Gly Gln
Asp Ser Ser Asp Asp Asn His Ser Gly Thr Leu Gly Leu Ser Leu Thr
                             120
Ser Asp Ala Pro Phe Leu Ser Asp Tyr Gln Asp Glu Gly Met Glu Asp
                         135
Ile Val Lys Gly Ala Gln Glu Leu Asp Asn Val Ile Lys Gln Gly Tyr
Leu Glu Lys Lys Ser Lys Asp His Ser Phe Phe Gly Ser Glu Trp Gln
                                     170
Lys Arg Trp Cys Val Val Ser Arg Gly Leu Phe Tyr Tyr Ala Asn
Glu Lys Ser Lys Gln Pro Lys Gly Thr Phe Leu Ile Lys Gly Tyr Ser
                             200
Val Arg Met Ala Pro His Leu Arg Arg Asp Ser Lys Lys Glu Ser Cys
                         215
Phe Glu Leu Thr Ser Gln Asp Arg Arg Ser Tyr Glu Phe Thr Ala Thr
Ser Pro Ala Glu Ala Arg Asp Trp Val Asp Gln Ile Ser Phe Leu Leu
                                      250
Lys Asp Leu Ser Ser Leu Thr Ile Pro Tyr Glu Glu Asp Glu Glu Glu
Glu Glu Lys Glu Glu Thr Tyr Asp Asp Ile Asp Gly Phe Xaa Ser Pro
Xaa Cys Gly Ser Gln Cys Arg Pro Thr Ile Xaa Pro Gly Ser Xaa Gly
```

290 295 300

Ile Lys Glu Pro Thr Glu Glu Lys Glu Glu Glu Asp Ile Tyr Glu Ser 305 310 315 320

Leu Ala Arg

<210> 74

<211> 327

<212> PRT

<213> Homo sapiens

<400> 74

Asn Cys Gln Gly Thr Gly Asp Phe Asn Leu Lys Val Glu Ala Ala Lys 1 5 10 15

Ile Ala Arg Ser Arg Ser Val Met Thr Gly Glu Gln Met Ala Ala Phe

His Pro Ser Ser Thr Pro Asn Pro Leu Glu Arg Pro Ile Lys Met Gly 35 40 45

Trp Leu Lys Lys Gln Arg Ser Ile Val Lys Asn Trp Gln Gln Arg Tyr 50 60

Phe Val Leu Arg Ala Gln Gln Leu Tyr Tyr Tyr Lys Asp Glu Glu Asp 65 70 75 80

Thr Lys Pro Gln Gly Cys Met Tyr Leu Pro Gly Cys Thr Ile Lys Glu 85 90 95

Ile Ala Thr Asn Pro Glu Glu Ala Gly Lys Phe Val Phe Glu Ile Ile 100 105 110

Pro Ala Ser Trp Asp Gln Asn Arg Met Gly Gln Asp Ser Tyr Val Leu 115 120 125

Met Ala Ser Ser Gln Ala Glu Met Glu Glu Trp Val Lys Phe Leu Arg 130 135 140

Arg Val Ala Gly Thr Pro Cys Gly Ala Val Phe Gly Gln Arg Leu Asp 145 150 155 160

Glu Thr Val Ala Tyr Glu Gln Lys Phe Gly Pro His Leu Val Pro Ile 165 170 175

Leu Val Glu Lys Cys Ala Glu Phe Ile Leu Glu His Gly Arg Asn Glu
180 185 190

Glu Gly Ile Phe Arg Leu Pro Gly Gln Asp Asn Leu Val Lys Gln Leu 195 200 205

Arg Asp Ala Phe Asp Ala Gly Glu Arg Pro Ser Phe Asp Arg Asp Thr 210 215 220

Asp Val His Thr Val Ala Ser Leu Leu Lys Leu Tyr Leu Arg Asp Leu 225 230 235 240

Pro Glu Pro Val Val Pro Trp Ser Gln Tyr Glu Gly Phe Leu Leu Cys 245 250 255

Gly Gln Leu Thr Asn Ala Asp Glu Ala Lys Ala Gln Glu Leu Met  $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$ 

Lys Gln Leu Ser Ile Leu Pro Arg Asp Asn Tyr Ser Leu Leu Ser Tyr 275 280 285

Ile Cys Arg Phe Leu His Glu Ile Gln Leu Asn Cys Ala Val Asn Lys 290 295 300

Met Ser Val Asp Asn Leu Ala Thr Val Ile Gly Val Asn Leu Ile Arg 305 310 315 320

Ser Lys Val Glu Ala Leu Pro 325

<210> 75

<211> 283

<212> PRT

<213> Homo sapiens

<400> 75

Arg Ala Arg Met Gly Arg Ala Glu Leu Leu Glu Gly Lys Met Ser Thr 1 5 10 15

Gln Asp Pro Ser Asp Leu Trp Ser Arg Ser Asp Gly Glu Ala Glu Leu 20 25 30

Leu Gln Asp Leu Gly Trp Tyr His Gly Asn Leu Thr Arg His Ala Ala 35 40 45

Glu Ala Leu Leu Ser Asn Gly Cys Asp Gly Ser Tyr Leu Leu Arg 50 55 60

Asp Ser Asn Glu Thr Thr Gly Leu Tyr Ser Leu Ser Val Arg Ala Lys 65 70 75 80

Asp Ser Val Lys His Phe His Val Glu Tyr Thr Gly Tyr Ser Phe Lys 85 90 95

Phe Gly Phe Asn Glu Phe Ser Ser Leu Lys Asp Phe Val Lys His Phe 100 105 110

Ala Asn Gln Pro Leu Ile Gly Ser Glu Thr Gly Thr Leu Met Val Leu 115 120 125

Lys His Pro Tyr Pro Arg Lys Val Glu Glu Pro Ser Ile Tyr Glu Ser  $130 \\ \hspace{1.5cm} 135 \\ \hspace{1.5cm} 140$ 

Val Arg Val His Thr Ala Met Gln Thr Gly Arg Thr Glu Asp Asp Leu 145 150 155 160

Val Pro Thr Ala Pro Ser Leu Gly Thr Lys Glu Gly Tyr Leu Thr Lys 165 170 175

Gln Gly Gly Leu Val Lys Thr Trp Lys Thr Arg Trp Phe Thr Leu His

Arg Asn Glu Leu Lys Tyr Phe Lys Asp Gln Met Ser Pro Glu Pro Ile 195 200 205

Arg Ile Leu Asp Leu Thr Glu Cys Ser Ala Val Gln Phe Asp Tyr Ser 210 220

Gln Glu Arg Val Asn Cys Phe Cys Leu Val Phe Pro Phe Arg Thr Phe 225 230 235 240

Tyr Leu Cys Ala Lys Thr Gly Val Glu Ala Asp Glu Trp Ile Lys Ile 245 250 255

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Leu Arg Trp Lys Leu Ser Gln Ile Arg Lys Gln Leu Asn Gln Gly Glu
            260
                                265
Gly Thr Ile Arg Ser Arg Ser Phe Ile Phe Lys
<210> 76
<211> 146
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 76
Ile Ser Gln Leu Trp Xaa Ser Ala Leu Arg Asn Ala Ser Ala Pro Asn
Pro Asn Lys Leu Ala Ala Cys His Pro Gly Ala Phe Arg Ser Ala Arg
Trp Thr Cys Cys Leu Gln Ala Glu Arg Ser Ala Ala Gly Cys Ser Arg
Thr His Ser Ala Val Thr Leu Gly Asp Trp Ser Asp Pro Leu Asp Pro
Asp Ala Glu Ala Gln Thr Val Tyr Arg Gln Leu Leu Gly Arg Asp
Gln Leu Arg Leu Lys Leu Leu Glu Asp Ser Asn Met Asp Thr Thr Leu
Glu Ala Asp Thr Gly Ala Cys Pro Glu Val Leu Ala Arg Gln Arg Ala
Ala Thr Ala Arg Leu Leu Glu Val Leu Ala Asp Leu Asp Arg Ala His
                            120
Glu Glu Phe Gln Gln Glu Arg Gly Lys Ala Ala Leu Gly Pro Leu
    130
                        135
Gly Pro
145
<210> 77
<211> 250
<212> PRT
<213> Homo sapiens
<400> 77
Lys Met Val Asp Arg Leu Ala Asn Ser Glu Ala Asn Thr Arg Arg Ile
Ser Ile Val Glu Asn Cys Phe Gly Ala Ala Gly Gln Pro Leu Thr Ile
Pro Gly Arg Val Leu Ile Gly Glu Gly Val Leu Thr Lys Leu Cys Arg
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Lys Lys Pro Lys Ala Arg Gln Phe Phe Leu Phe Asn Asp Ile Leu Val

50 55 Tyr Gly Asn Ile Val Ile Gln Lys Lys Lys Tyr Asn Lys Gln His Ile Ile Pro Leu Glu Asn Val Thr Ile Asp Ser Ile Lys Asp Glu Gly Asp Leu Arg Asn Gly Trp Leu Ile Lys Thr Pro Thr Lys Ser Phe Ala Val Tyr Ala Ala Thr Ala Thr Glu Lys Ser Glu Trp Met Asn His Ile Asn Lys Cys Val Thr Asp Leu Leu Ser Lys Ser Gly Lys Thr Pro Ser Asn Glu His Ala Ala Val Trp Val Pro Asp Ser Glu Ala Thr Val Cys Met Arg Cys Gln Lys Ala Lys Phe Thr Pro Val Asn Arg Arg His His Cys Arg Lys Cys Gly Phe Val Val Cys Gly Pro Cys Ser Glu Lys Arg Phe Leu Leu Pro Ser Gln Ser Ser Lys Pro Val Arg Ile Cys Asp Phe Cys 200 Tyr Asp Leu Leu Ser Ala Gly Asp Met Ala Thr Cys Gln Pro Ala Arg Ser Asp Ser Tyr Ser Gln Ser Leu Lys Ser Pro Leu Asn Asp Met Ser Asp Asp Asp Asp Asp Asp Ser Ser Asp 245

<210> 78 <211> 224

<212> PRT

<213> Homo sapiens

<400> 78

Leu Asn Ile Leu Leu Arg Ile Asp Phe Asp Glu Gly Cys His Asn Glu 1 5 10 15

Arg Lys Val Thr Cys Lys His Pro Val Thr Gly Gln Pro Ser Gln Asp 20 25 30

Asn Cys Ile Phe Val Val Asn Glu Gln Thr Val Ala Thr Met Thr Ser 35 40 45

Glu Glu Lys Lys Glu Arg Pro Ile Ser Met Ile Asn Glu Ala Ser Asn 50 60

Tyr Asn Val Thr Ser Asp Tyr Ala Val His Pro Met Ser Pro Val Gly 65 70 75 80

Arg Thr Ser Arg Ala Ser Lys Lys Val His Asn Phe Gly Lys Arg Ser 85 90 95

Asn Ser Ile Lys Arg Asn Pro Asn Ala Pro Val Val Arg Arg Gly Trp 100 105 110

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Leu Tyr Lys Gln Asp Ser Thr Gly Met Lys Leu Trp Lys Lys Arg Trp
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Phe Val Leu Ser Asp Leu Cys Leu Phe Tyr Tyr Arg Asp Glu Lys Glu
    130
                        135
                                             140
Glu Gly Ile Leu Gly Ser Ile Leu Leu Pro Ser Phe Gln Ile Ala Leu
Leu Thr Ser Glu Asp His Ile Asn Arg Lys Tyr Ala Phe Lys Ala Ala
His Pro Asn Met Arg Thr Tyr Tyr Phe Cys Thr Asp Thr Gly Lys Glu
            180
                                 185
                                                     190
Met Glu Leu Trp Met Lys Ala Met Leu Asp Ala Ala Leu Val Gln Thr
                            200
Glu Pro Val Lys Arg Val Asp Lys Ile Thr Ser Glu Asn Ala Pro Thr
<210> 79
<211> 354
<212> PRT
<213> Homo sapiens
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Ser Ala Thr Ser Ser Xaa Thr Thr Cys Ala Cys Thr Pro Pro Glu Pro
Xaa Pro Thr Thr Glu Asp Glu Gly Leu Pro Ala Ala Xaa Pro Ile
Pro Xaa Arg Arg Ser Xaa Leu Xaa Xaa Thr Cys Phe Thr Thr Pro Ser
Thr Ala Ala Pro Asp Pro Val Leu Pro Pro Leu Pro Ala Lys Arg His
     50
                         55
Leu Ala Glu Leu Ser Val Pro Pro Val Pro Pro Arg Thr Gly Pro Pro
Arg Leu Leu Val Ser Leu Pro Thr Lys Glu Glu Ser Leu Leu Pro
```

				85					90					95	
Ser	Leu	Ser	Ser 100	Pro	Pro	Gln	Pro	Gln 105	Ser	Glu	Glu	Pro	Leu 110	Ser	Thr
Leu	Pro	Gln 115	Gly	Pro	Pro	Gln	Pro 120	Pro	Ser	Pro	Pro	Pro 125	Cys	Pro	Pro
Glu	Ile 130	Pro	Pro	Lys	Pro	Val 135	Arg	Leu	Phe	Pro	Glu 140	Phe	Asp	Asp	Ser
Xaa 145	Tyr	Asp	Glu	Val	Pro 150	Xaa	Glu	Gly	Pro	Gly 155	Ala	Pro	Ala	Arg	Val 160
Met	Thr	Lys	Lys	Xaa 165	Xaa	Pro	Pro	Pro	Ser 170	Arg	Val	Pro	Arg	Ala 175	Val
Arg	Val	Ala	Ser 180	Leu	Leu	Ser	Glu	Gly 185	Glu	Glu	Leu	Ser	Gly 190	Asp	Asp
Gln	Gly	Asp 195	Glu	Glu	Glu	Asp	Asp 200	His	Ala	Tyr	Xaa	Gly 205	Val	Pro	Asn
Gly	Gly 210	Trp	His	Thr	Xaa	Ser 215	Leu	Ser	Leu	Ser	Leu 220	Pro	Ser	Thr	Ile
Ala 225	Ala	Pro	His	Pro	Met 230	Asp	Gly	Pro	Pro	Gly 235	Gly	Ser	Thr	Pro	Val 240
Thr	Pro	Val	Ile	Xaa 245	Ala	Gly	Trp	Leu	Asp 250	Xaa	Asn	Pro	Pro	Gln 255	Gly
Ser	Tyr	Ile	Tyr 260	Gln	Lys	Arg	Trp	Val 265	Arg	Leu	Asp	Thr	Asp 270	His	Leu
Arg	Tyr	Phe 275	Asp	Ser	Asn	Lys	Asp 280	Ala	Tyr	Ser	Lys	Arg 285	Phe	Ile	Ser
Val	Ala 290	Cys	Ile	Ser	His	Val 295	Ala	Ala	Ile	Gly	Asp 300	Gln	Lys	Phe	Glu
Val 305	Ile	Thr	Asn	Asn	Arg 310	Thr	Phe	Ala	Phe	Arg 315	Ala	Glu	Ser	Asp	Val 320
Glu	Arg	Lys	Glu	Trp 325	Met	Gln	Ala	Leu	Gln 330	Gln	Ala	Met	Ala	Glu 335	Gln
Arg	Ala	Arg	Ala 340	Arg	Xaa	Ser	Ser	Ala 345	Tyr	Leu	Leu	Gly	Val 350	Pro	Gly
Ser	Xaa														

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<sup>&</sup>lt;211> 251 <212> PRT <213> Homo sapiens

<sup>&</sup>lt;220>

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<sup>&</sup>lt;220> <221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 80
Thr Ile Cys Phe Trp Lys Gln Asp Ser Arg Gly Arg Val Pro Ala Thr
Ala Asp Gln Ala Pro Arg Arg Thr Gln Ala Ser Thr Glu Gln Ala Glu
Thr Asp Asp Asn Met Asp Thr Lys Ser Ile Leu Glu Glu Leu Leu Leu
Lys Arg Ser Gln Gln Lys Lys Met Ser Pro Xaa Asn Tyr Lys Glu
Arg Leu Phe Val Leu Thr Lys Thr Asn Leu Ser Tyr Tyr Glu Tyr Asp
Lys Met Lys Arg Gly Ser Arg Lys Gly Ser Ile Glu Ile Lys Lys Ile
Arg Cys Val Glu Lys Val Asn Leu Glu Glu Gln Thr Pro Val Glu Arg
            100
Xaa Tyr Pro Phe Xaa Ile Val Xaa Lys Xaa Gly Leu Leu Tyr Val Tyr
Ala Ser Asn Glu Glu Ser Arg Ser Gln Trp Leu Lys Ala Leu Gln Lys
Glu Ile Arg Gly Asn Pro His Leu Leu Val Lys Tyr His Ser Gly Phe
145
Phe Val Asp Gly Lys Phe Leu Cys Cys Gln Gln Ser Cys Lys Ala Ala
```

```
Pro Gly Cys Thr Leu Trp Glu Ala Tyr Ala Asn Leu His Thr Ala Val180 185 190
```

Asn Glu Glu Lys His Arg Val Pro Thr Phe Pro Asp Arg Val Leu Lys 195 200 205

Ile Pro Arg Ala Val Pro Val Leu Lys Met Asp Ala Pro Ser Ser Ser 210 215 220

Thr Thr Leu Pro Asn Met Thr Thr Asn Xaa Arg Lys Thr Met Xaa Ser 225 230 235 240

Ser Pro Ile Phe Lys Val Gln Ser Xaa Ala Ile 245 250

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<210> 81
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<220>

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<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 81

Pro Arg Val Arg Leu Ala Glu Leu Leu Lys Tyr Thr Ala Gln Asp His 1  $\phantom{-}5\phantom{+}10\phantom{+}15\phantom{+}15$ 

Ser Asp Tyr Arg Tyr Val Ala Ala Ala Leu Ala Val Met Arg Asn Val 20 25 30

Thr Gln Gln Ile Asn Glu Arg Lys Arg Arg Leu Glu Asn Ile Asp Lys 35 40 45

Ile Ala Gln Trp Gln Ala Ser Val Leu Asp Trp Glu Gly Glu Asp Ile 50 60

Leu Asp Arg Ser Ser Glu Leu Ile Tyr Thr Gly Glu Met Ala Trp Ile 65 70 75 80

Tyr Gln Pro Tyr Xaa Arg Asn Gln Gln Arg Val Phe Phe Leu Phe Asp 85 90 95

His Gln Met Val Leu Cys Lys Lys Asp Leu Ile Arg Arg Asp Ile Leu 100 105 110

Tyr Tyr Lys Gly Arg Ile Asp Met Asp Lys Tyr Glu Val Val Asp Ile 115 120 125

Glu Asp Gly Arg Asp Asp Phe Asn Val Ser Met Lys Asn Ala Phe 130 135 140

Lys Leu His Asn Lys Glu Thr Glu Glu Ile His Leu Phe Phe Ala Lys 145 150 155 160

Lys Leu Glu Glu Lys Ile Arg Trp Leu Arg Ala Phe Arg Glu Glu Arg 165 170 175

Lys Met Val Gln Glu Asp Glu Lys Ile Gly Phe Glu Ile Ser Glu Asn 180 185 190

Gln Lys Arg Gln Ala Ala Met Thr Val Arg Lys Val Pro Lys Gln Lys 195 200 205

<sup>&</sup>lt;211> 268

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

```
Gly Val Asn Ser Ala Arg Ser Val Pro Pro Ser Tyr Pro Pro Gln 210 215 220
```

Asp Pro Leu Asn His Gly Gln Tyr Leu Val Pro Asp Gly Ile Ala Gln 225 230 235 240

Ser Gln Val Phe Glu Phe Thr Glu Pro Lys Arg Ser Gln Ser Pro Phe 245 250 255

Trp Gln Asn Phe Ser Arg Leu Thr Pro Phe Lys Lys 260 265

```
<210> 82
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- <220>
- <221> SITE
- <222> (118)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <220>
- <221> SITE
- <222> (132)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <220>
- <221> SITE
- <222> (365)
- <223> Xaa equals any of the naturally occurring L-amino acids

## <400> 82

Thr Leu Ser Val Leu Trp Phe Gln Cys Pro Ala Glu Glu His Ala Ala 1 5 10 15

Glu Gln Glu Ser His Pro Gln Ser Gly Gly Asp Pro Gly Asp Pro 20 25 30

Gln Gly Trp Leu Thr Ile Asn Asn Ile Ser Leu Met Lys Gly Gly Ser 35 40 45

Lys Glu Tyr Trp Phe Val Leu Thr Ala Glu Ser Leu Ser Trp Tyr Lys 50 60

Asp Glu Glu Lys Glu Lys Lys Tyr Met Leu Pro Leu Asp Asn Leu 65 70 75 80

Lys Ile Arg Asp Val Glu Lys Gly Phe Met Ser Asn Lys His Val Phe  $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$ 

Ala Ile Phe Asn Thr Glu Gln Arg Asn Val Tyr Lys Asp Leu Arg Gln 100 105 110

Ile Glu Leu Ala Cys Xaa Ser Gl<br/>n Glu Asp Val Asp Ser Tr<br/>p Lys Ala 115 120 125

Ser Phe Leu Xaa Ala Gly Val Tyr Pro Glu Lys Asp Gln Ala Glu Asn 130 135 140

Glu Asp Gly Ala Gln Glu Asn Thr Phe Ser Met Asp Pro Gln Leu Glu 145 150 155 160

Arg Gln Val Glu Thr Ile Arg Asn Leu Val Asp Ser Tyr Val Ala Ile

<sup>&</sup>lt;211> 380

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

				165					170					175	
Ile	Asn	Lys	Ser 180	Ile	Arg	Asp	Leu	Met 185	Pro	Lys	Thr	Ile	Met 190	His	Lei
Met	Ile	Asn 195	Asn	Thr	Lys	Ala	Phe 200	Ile	His	His	Glu	Leu 205	Leu	Ala	Туі
Leu	Tyr 210	Ser	Ser	Ala	Asp	Gln 215	Ser	Ser	Leu	Met	Glu 220	Glu	Ser	Ala	Asr
Gln 225	Ala	Gln	Arg	Arg	Asp 230	Asp	Met	Leu	Arg	Met 235	Tyr	His	Ala	Leu	Lys 240
Glu	Ala	Leu	Asn	Ile 245	Ile	Gly	Asp	Ile	Ser 250	Thr	Ser	Thr	Val	Ser 255	Thi
Pro	Va1	Pro	Pro 260	Pro	Val	Asp	Asp	Thr 265	Trp	Leu	Gln	Ser	Ala 270	Ser	Sei
His	Ser	Pro 275	Thr	Pro	Gln	Arg	Arg 280	Pro	Val	Ser	Ser	Ile 285	His	Pro	Pro
Gly	Arg 290	Pro	Pro	Ala	Val	Arg 295	Gly	Pro	Thr	Pro	Gly 300	Pro	Pro	Leu	Ile
Pro 305	Val	Pro	Val	Gly	Ala 310	Ala	Ala	Ser	Phe	Ser 315	Ala	Pro	Pro	Ile	Pro 320
Ser	Arg	Pro	Gly	Pro 325	Gln	Ser	Val	Phe	Ala 330	Asn	Ser	Asp	Leu	Phe 335	Pro
Ala	Pro	Pro	Gln 340	Ile	Pro	Ser	Arg	Pro 345	Val	Arg	Ile	Pro	Pro 350	Gly	Ile
Pro	Pro	Gly 355	Val	Pro	Ser	Arg	Arg 360	Pro	Pro	Ala	Ala	Xaa 365	Ser	Arg	Pro
Thr	Ile 370	Ile	Arg	Pro	Ala	Glu 375	Pro	Ser	Leu	Leu	Asp 380				

```
<210> 83
```

<400> 83

Arg Lys Ala Pro Gly Gly Phe Met Gly Pro Arg Trp Arg Arg Arg Trp  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 10

Phe Val Leu Lys Gly His Thr Leu Tyr Trp Tyr Arg Gln Pro Gln Asp  $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$ 

Glu Lys Ala Glu Gly Leu Ile Asn Val Ser Asn Tyr Ser Leu Glu Ser

Tyr Lys Pro Phe Ile Phe Ala Ala Asp Thr Leu Thr Asp Leu Ser Met

Trp Val Arg His Leu Ile Thr Cys Ile Ser Lys Tyr Gln Ser Pro Gly

<sup>&</sup>lt;211> 229 <212> PRT

<sup>&</sup>lt;213> Homo sapiens

```
Arg Ala Pro Pro Pro Arg Glu Glu Asp Cys Tyr Ser Glu Thr Glu Ala
                                105
Glu Asp Pro Asp Asp Glu Ala Gly Ser His Ser Ala Ser Pro Ser Pro
                            120
                                                 125
Ala Gln Ala Gly Ser Pro Leu His Gly Asp Thr Ser Pro Ala Ala Thr
                        135
Pro Thr Gln Arg Ser Pro Arg Thr Ser Phe Gly Ser Leu Thr Asp Ser
Ser Glu Glu Ala Leu Glu Gly Met Val Arg Gly Leu Arg Gln Gly Gly
                165
                                     170
Val Ser Leu Leu Gly Gln Pro Gln Pro Leu Thr Gln Glu Gln Trp Arg
                                185
Ser Ser Phe Met Arg Arg Asn Arg Asp Pro Gln Leu Asn Glu Arg Val
His Arg Val Arg Ala Leu Gln Ser Thr Leu Lys Val Ser Trp Gly Val
    210
                        215
                                             220
Gly Thr Ala Arg Asp
<210> 84
<211> 119
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 84
Leu Arg Ala Gly Ser Leu Lys Tyr Ser Xaa Leu Gln Ala Glu Gly Asn
Phe Asp Pro Ser Cys Cys Phe Thr Ile Tyr His Gly Asn His Met Glu
Ser Leu Asp Leu Ile Thr Ser Asn Pro Glu Glu Ala Arg Thr Trp Ile
Thr Gly Leu Lys Tyr Leu Met Ala Gly Ile Ser Asp Glu Asp Ser Leu
Ala Lys Arg Gln Arg Thr His Asp Gln Trp Val Lys Gln Thr Phe Glu
                     70
Glu Ala Asp Lys Asn Gly Asp Gly Leu Leu Asn Ile Glu Glu Ile His
```

Gln Leu Met His Lys Leu Asn Val Asn Leu Pro Arg Arg Lys Val Xaa

```
Gln Met Phe Xaa Glu Ala Asp
        115
<210> 85
<211> 257
<212> PRT
<213> Homo sapiens
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<222> (256)
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<400> 85
Arg Gly Gly His Arg Leu Ser Gly Met Ala Ser Asn Phe Asn Asp Ile
Val Lys Gln Gly Tyr Val Arg Ile Arg Ser Arg Arg Leu Gly Ile Tyr
Gln Arg Cys Trp Leu Val Phe Lys Lys Ala Ser Ser Lys Gly Pro Lys 35
Arg Leu Glu Lys Phe Ser Asp Glu Arg Ala Ala Tyr Phe Arg Cys Tyr
His Lys Val Thr Glu Leu Asn Asn Val Lys Asn Val Ala Arg Leu Pro
Lys Ser Thr Lys Lys His Ala Ile Gly Ile Tyr Phe Asn Asp Asp Thr
Ser Lys Thr Phe Ala Cys Glu Ser Asp Leu Glu Ala Asp Glu Trp Cys
Lys Val Leu Gln Met Glu Cys Val Gly Thr Arg Ile Asn Asp Ile Ser
                            120
Leu Gly Glu Pro Asp Leu Leu Ala Thr Gly Val Glu Arg Glu Gln Ser
                        135
```

```
Glu Arg Phe Asn Val Tyr Leu Met Pro Ser Pro Asn Leu Asp Val His 145 150 155 160
```

Gly Glu Cys Ala Leu Gln Ile Thr Tyr Glu Tyr Ile Cys Leu Trp Asp 165 170 175

Val Gln Asn Pro Arg Val Lys Leu Ile Ser Trp Pro Leu Ser Ala Leu 180 185 190

Arg Arg Leu Trp Asp Val Asp Thr Thr Trp Phe Thr Phe Glu Gly Arg 195 200 205

Glu Asp Val Xaa Arg Leu Gly Glu Gly Ala Val Tyr Leu Phe Arg Pro 210 215 220

Glu Thr Gly Arg Ala Ile Xaa Ser Gly Lys Ser Xaa Leu Xaa Ala Leu 225 230 235 240

Ala His Arg Pro Arg Gln Ala Arg Ala Phe Ala Asn Arg Val Leu Xaa 245 250 255

Lys

<210> 86

<211> 240

<212> PRT

<213> Homo sapiens

<400> 86

Glu Glu Leu Thr Leu Glu Ile Leu Asp Arg Arg Asn Val Gly Ile Arg 1 10 15

Glu Lys Asp Tyr Trp Thr Cys Phe Glu Val Asn Glu Arg Glu Glu Ala 20 25 30

Glu Arg Pro Leu His Phe Ala Glu Lys Val Leu Pro Ile Leu His Gly
35 40

Leu Gly Thr Asp Ser His Leu Val Val Lys Lys His Gln Ala Met Glu 50 60

Ala Met Leu Leu Tyr Leu Ala Ser Arg Val Gly Asp Thr Lys His Gly 65 70 75 80

Met Met Lys Phe Arg Glu Asp Arg Ser Leu Leu Gly Leu Gly Leu Pro 85 90 95

Ser Gly Gly Phe His Asp Arg Tyr Phe Ile Leu Asn Ser Ser Cys Leu 100 105 110

Arg Leu Tyr Lys Glu Val Arg Ser His Arg Pro Glu Lys Glu Trp Pro  $115 \\ 120 \\ 125$ 

Ile Lys Ser Leu Lys Val Tyr Leu Gly Val Lys Lys Leu Arg Pro $130 \hspace{1.5cm} 135 \hspace{1.5cm} 140 \hspace{1.5cm}$ 

Pro Thr Cys Trp Gly Phe Thr Val Val His Glu Thr Glu Lys His Glu 145 150 155 160

Lys Gln Gln Trp Tyr Leu Cys Cys Asp Thr Gln Met Glu Leu Arg Glu 165 170 175

Trp Phe Ala Thr Phe Leu Phe Val Gln His Asp Gly Leu Val Trp Pro 180 185 190 Ser Glu Pro Ser Arg Val Ser Arg Ala Val Pro Glu Val Arg Leu Gly  $195 \hspace{1.5cm} 200 \hspace{1.5cm} 205$ 

Ser Val Ser Leu Ile Pro Leu Arg Gly Ser Glu Asn Glu Met Arg Arg 210 215 220

Ser Val Ala Ala Phe Thr Ala Asp Pro Leu Ser Leu Leu Arg Asn Val 225 230 235 240

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<210> 87
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<211> 94

<212> PRT

<213> Homo sapiens

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<221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 87

Ser Asn Pro Pro Lys Ser Ser Ser Leu Ser Leu Ala Ser Ser Ala Ser 1 5 10 15

Thr Ile Ser Ser Leu Ser Ser Leu Ser Pro Lys Lys Pro Thr Arg Xaa 20 25 30

Val Asn Lys Ile His Ala Phe Gly Lys Arg Gly Asn Ala Leu Arg Arg 35 40 45 .

Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln Asp 50 60

Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser Gly 65 70 75 80

His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Arg Val Ser 85 90

```
<210> 88
```

<211> 76

<212> PRT

<213> Homo sapiens

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<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 88

Leu Phe Pro Leu Val Val Leu Arg Gly Asp Ala Gln Gly Ala Pro Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Phe Lys Asn Trp Ile Met Asn Asn Phe Ile Leu Leu Xaa Glu Gln Leu 20 25 30

```
Ile Lys Lys Ser Gln Gln Lys Arg Arg Thr Ser Pro Ser Asn Phe Lys 35 40 45
```

Val Arg Phe Phe Val Leu Thr Lys Ala Ser Leu Ala Tyr Phe Glu Asp 50 60

Arg His Gly Lys Lys Arg Thr Leu Xaa Gly Val His 65 70 75

```
<210> 89
```

<400> 89

Val Arg Thr Glu His Thr Gly Glu Leu Gln Lys Glu Glu Ala Met Ala 1 5 15

Ala Val Ile Leu Glu Ser Ile Phe Leu Lys Arg Ser Gln Gln Lys Lys 20 25 30

Lys Thr Ser Pro Leu Asn Phe Lys Lys Arg Leu Phe Leu Leu Thr Val 35 40 45

His Lys Leu Ser Tyr Tyr Glu Tyr Asp Phe Glu Arg Gly Arg Arg Gly 50 60

Ser Lys Lys Gly Ser Ile Asp Val Glu Lys Ile Thr Cys Val Glu Thr 65 70 75 80

Val Val Pro Glu Lys Asn Pro Pro Pro Glu Arg Gln Ile Pro Arg Arg 85 90 95

Gly Glu Glu Ser Ser Glu Met Glu Gln Ile Ser Ile Ile Glu Arg Phe 100 105 110

Pro Tyr Pro Phe Gln Val Val Tyr Asp Glu Xaa Pro Leu Tyr Val Phe 115  $$120\,$ 

Ser Pro Thr Glu Glu Leu Arg Lys Arg Trp Ile His Gln Leu Lys Asn 130 140

Val Ile Arg Tyr Asn Ser Asp Leu Val Gln Lys Tyr His Pro Cys Phe 145 150 155 160

Trp Ile Asp Gly Gln Tyr Leu Cys Cys Ser Gln Thr Ala Lys Asn Ala 165 170 175

Ser Ser His Arg Lys Thr Lys Lys Pro Leu Pro Pro Thr Pro Glu Glu 195 200 205

Asp Gln Ile Leu Lys Lys Pro Xaa Pro Pro Glu Pro Ala Ala Pro

<sup>&</sup>lt;211> 246

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (123)

<sup>&</sup>lt;223> Xaa equals any of the naturally occurring L-amino acids

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (216)

<sup>&</sup>lt;223> Xaa equals any of the naturally occurring L-amino acids

35

```
210
                        215
                                             220
Val Ser Thr Ser Gly Ala Gly Lys Arg Leu Trp Pro Phe Met Asp Tyr
                                         235
Met Pro Met Asn Ala Lys
                245
<210> 90
<211> 68
<212> PRT
<213> Homo sapiens
<220>
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<400> 90
Lys Phe Glu Ile Trp Tyr Asn Ala Arg Glu Glu Val Tyr Ile Val Gln
Ala Pro Thr Pro Glu Ile Lys Ala Ala Trp Val Asn Glu Ile Arg Lys
Val Leu Thr Ser Gln Leu Gln Ala Cys Arg Glu Ala Ser Gln His Arg
Ala Leu Glu Gln Ser Xaa Ser Leu Pro Leu Pro Ala Pro Thr Ser Thr
Ser Pro Ser Arg
 65
<210> 91
<211> 133
<212> PRT
<213> Homo sapiens
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 91
Gly Lys Arg Gly Asp Ser Pro Asp Pro Pro Ser Cys Ser Gln Ala Arg
                                      10
Ser Leu Thr Arg Tyr Leu Pro Ile Arg Lys Glu Asp Phe Xaa Leu Lys
Thr His Ile Glu Ser Ser Gly His Gly Val Asp Thr Cys Xaa His Val
```

```
Val Leu Ser Ser Lys Val Cys Arg Gly Tyr Leu Val Lys Met Gly Gly
Lys Ile Xaa Ser Trp Lys Lys Arg Trp Phe Val Phe Asp Arg Leu Lys 65 70 75 80
Arg Thr Leu Ser Tyr Tyr Val Asp Lys His Glu Thr Lys Leu Lys Gly
Val Ile Tyr Phe Gln Ala Ile Glu Glu Val Tyr Tyr Asp His Leu Arg
Ser Ala Ala Lys Ser Pro Asn Pro Ala Leu Thr Phe Cys Val Lys Thr
                                                 125
                            120
        115
His Asp Arg Leu Tyr
    130
<210> 92
<211> 137
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
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<220>
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<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 92
His Glu Val Leu Phe Leu Gly Met Glu Glu Met Val Arg Val Thr
Xaa Gly Arg Leu Thr Gly Asp Pro Asp Val Leu Glu Tyr Tyr Lys Asn
Asp His Ala Lys Lys Pro Ile Arg Ile Ile Asp Leu Asn Leu Cys Gln
Gln Val Asp Ala Gly Leu Thr Phe Asn Lys Lys Glu Phe Glu Asn Ser
Tyr Ile Phe Asp Ile Asn Thr Ile Asp Arg Ile Phe Tyr Leu Val Ala
Asp Ser Glu Glu Met Asn Lys Trp Val Arg Cys Ile Cys Asp Ile
                                      90
Xaa Gly Phe Asn Pro Thr Glu Glu Gly Lys Phe Lys Ile Leu Leu Phe
```

```
Xaa Leu Xaa Phe Phe Phe Ser Gly Tyr Ile Ser Arg Asn Val Ile Thr
  Ile Leu Cys Tyr Phe Ser Tyr Thr Ile
                          135
  <210> 93
  <211> 304
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (21)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
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  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (253)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (275)
  <223> Xaa equals any of the naturally occurring L-amino acids
. <220>
  <221> SITE
  <222> (284)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (286)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (290)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <400> 93
  Ser Ser Arg Ser Leu Met Glu Gln Gly Ile Gln Glu Asp Glu Gln Leu
  Leu Tyr Asp Leu Xaa Tyr Tyr Ser Phe Phe Asp Leu Asn Pro Lys Tyr
  Asp Ala Val Arg Ile Asn Gln Leu Tyr Glu Gln Ala Arg Trp Ala Ile
  Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Leu Ile Phe Ala
  Ala Leu Gln Tyr His Ile Ser Lys Leu Ser Leu Ser Ala Glu Thr Gln
  Asp Phe Ala Gly Glu Ser Glu Val Asp Glu Ile Glu Ala Ala Leu Ser
```

```
Asn Leu Glu Val Thr Leu Glu Gly Gly Lys Ala Asp Ser Leu Leu Glu
                                105
Asp Ile Thr Asp Ile Pro Lys Leu Ala Asp Asn Leu Lys Leu Phe Arg
                                                125
        115
                            120
Pro Lys Lys Leu Leu Pro Lys Ala Phe Lys Gln Tyr Trp Phe Ile Phe
Lys Asp Thr Ser Ile Ala Tyr Phe Lys Asn Lys Glu Leu Glu Gln Gly
Glu Pro Leu Glu Lys Leu Asn Leu Arg Gly Cys Glu Val Val Pro Asp
                                    170
                165
Val Asn Val Ala Gly Arg Lys Phe Gly Ile Lys Leu Leu Ile Pro Val
Ala Asp Gly Met Asn Glu Met Tyr Leu Arg Cys Asp His Glu Asn Gln
Tyr Xaa Gln Trp Met Ala Ala Cys Met Leu Ala Ser Lys Gly Lys Thr
    210
                        215
Met Ala Asp Ser Ser Tyr Gln Pro Glu Val Leu Asn Ile Leu Ser Phe
                                        235
                    230
Leu Arg Met Lys Asn Arg Asn Ser Ala Ser Gln Val Xaa Ser Ser Leu
Glu Asn Met Asp Met Asn Pro Glu Trp Phe Gly Ser Pro Arg Cys Ala
            260
                                265
Lys Arg Xaa Gln Ile Pro Asn Ser Leu Gly Pro Xaa Arg Xaa Pro Gly
                            280
Lys Xaa Ala Thr Gln Lys Pro Val Gly Pro Lys Asn Cys Pro Pro Trp
```

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<210> 94
<211> 302
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (257)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (270)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (277)
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<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (278) <223> Xaa equals any of the naturally occurring L-amino acids Asn Ser Ala Glu Val Asp Ser Ile Pro Lys Ser Leu Ser Asp Ser Leu Ser Pro Ser Leu Ser Ser Gly Thr Leu Ser Thr Ser Thr Ser Ile Ser Ser Gln Ile Ser Thr Thr Thr Phe Glu Ser Ala Ile Thr Pro Ser Glu Ser Ser Gly Tyr Asp Ser Gly Asp Ile Glu Ser Leu Val Asp Arg Glu Lys Glu Leu Ala Thr Lys Cys Leu Gln Leu Leu Thr His Thr Phe Asn Arg Glu Phe Ser Gln Val His Gly Ser Val Ser Asp Cys Lys Leu Ser Asp Ile Ser Pro Ile Gly Arg Asp Pro Ser Glu Ser Ser Phe Ser Ser 105 Ala Thr Leu Thr Pro Ser Ser Thr Cys Pro Ser Leu Val Asp Ser Arg Ser Asn Ser Leu Asp Gln Lys Thr Pro Glu Ala Asn Ser Arg Ala Ser Ser Pro Cys Pro Glu Phe Glu Gln Phe Gln Ile Val Pro Ala Val Glu 150 155 Thr Pro Tyr Leu Ala Arg Ala Gly Lys Asn Glu Phe Leu Asn Leu Val Pro Asp Ile Glu Glu Ile Arg Pro Ser Ser Val Val Ser Lys Lys Gly Tyr Leu His Phe Lys Glu Pro Leu Tyr Ser Asn Trp Ala Lys His Phe Val Val Val Arg Arg Pro Tyr Val Phe Ile Tyr Asn Ser Asp Lys Asp Pro Val Glu Arg Gly Ile Ile Asn Leu Ser Thr Ala Gln Val Glu Tyr 230 Ser Glu Asp Gln Gln Ala Met Val Lys Thr Pro Asn Thr Phe Ala Val 250 Xaa Thr Lys His Arg Gly Xaa Leu Leu Gln Ala Leu Asn Xaa Lys Asp Met Asn Asp Trp Xaa Xaa Ala Phe Asn Pro Leu Leu Ala Gly Thr Ile 280

Arg Ser Lys Leu Ser Arg Arg Cys Pro Ser Gln Ser Lys Tyr 290 295 300

```
<210> 95
<211> 135
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Glu Leu Gly Val Thr Glu His Val Glu Gly Asp Pro Cys Lys Phe
Ala Leu Trp Ser Gly Arg Thr Pro Ser Ser Asp Asn Lys Thr Val Leu
Lys Ala Ser Asn Ile Glu Thr Lys Gln Glu Trp Ile Lys Asn Ile Arg
Glu Val Ile Gln Glu Arg Ile Ile His Leu Lys Xaa Ala Leu Lys Glu
Pro Leu Gln Leu Pro Lys Thr Pro Ala Lys Gln Arg Asn Asn Ser Lys 65 70 75 80
Arg Asp Gly Val Glu Asp Ile Asp Ser Gln Gly Asp Gly Ser Ser Gln
Pro Asp Thr Ile Ser Ile Ala Ser Arg Thr Ser Gln Asn Thr Val Asp
Ser Asp Lys Asp Gly Asn Leu Val Pro Arg Trp His Leu Gly Pro Gly
Asp Pro Phe Ser Thr Tyr Val
                        135
    130
<210> 96
<211> 492
<212> PRT
<213> Homo sapiens
Glu Glu Arg Val Ser Val Ala Gly Ala Ser Gly Thr Met Ser Asp Val
Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly Glu Tyr Ile Lys
Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp Gly Thr Phe Ile
Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg Glu Ala Pro Leu
Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys Thr Glu Arg Pro
Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr Thr Val Ile
Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg Glu Glu Trp Thr
```

Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys Gln Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn Ser Gly Ala Glu 135 Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg Val Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly Lys Val 165 Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr Ala Met Lys Ile 1.85 Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val Ala His Thr Leu 200 Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro Phe Leu Thr Ala 215 Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe Val Met Glu 235 Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu Ile Val Ser Ala Leu Asp Tyr Leu His Ser Glu Lys Asn Val Val Tyr Arg Asp Leu Lys 280 Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr Asp 295 Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp Asn 325 Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Glu Ile Arg Phe Pro Arg Thr Leu 375 Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly Gly Ser Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Gly Ile Val Trp Gln His Val Tyr Glu Lys Lys 420 Leu Ser Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Met Ile Thr Ile Thr Pro Pro Asp Gln Asp Asp Ser Met Glu Cys Val Asp Ser Glu Arg Arg Pro His 465 470 475 480

Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Thr Ala 485 490

```
<210> 97
```

## <400> 97

Pro Thr Arg Pro Pro Thr Arg Pro Pro Thr Arg Pro Ser Arg Arg Gly
1 5 10 15

Ile Ala Val Ala Ser Trp Cys Ser Pro Arg Trp Phe Ala Gly Glu Glu 20 25 30

Met Ala Phe Val Lys Ser Gly Trp Leu Leu Arg Gln Ser Thr Ile Leu 35 40 45

Lys Arg Trp Lys Lys Asn Trp Phe Asp Leu Trp Ser Asp Gly His Leu 50 60

Ile Tyr Tyr Asp Asp Gln Thr Arg Gln Asn Ile Glu Asp Lys Val His 65 70 75 80

Met Pro Met Asp Cys Ile Asn Ile Arg Thr Gly Gln Glu Cys Arg Asp
85
90
95

Thr Gln Pro Pro Asp Gly Lys Ser Lys Asp Cys Met Leu Gln Ile Val 100 105 110

Cys Arg Asp Gly Lys Thr Ile Ser Leu Cys Ala Glu Ser Thr Asp Asp 115 120 125

Cys Leu Ala Trp Lys Phe Thr Leu Gln Asp Ser Arg Thr Asn Thr Ala 130 135 140

Tyr Val Gly Ser Ala Val Met Thr Asp Glu Thr Ser Val Val Ser Ser 145 150 160

Pro Pro Pro Tyr Thr Ala Tyr Ala Ala Pro Ala Pro Glu Gln Ala Tyr 165 170 175

Gly Tyr Gly Pro Tyr Gly Gly Ala Tyr Pro Pro Gly Thr Gln Val Val 180 185

Tyr Ala Ala Asn Gly Gln Ala Tyr Ala Val Pro Tyr Gln Tyr Pro Tyr 195 200 205

Ala Gly Leu Tyr Gly Gln Gln Pro Ala Asn Gln Val Ile Ile Arg Glu 210 220

Arg Tyr Arg Asp Asn Asp Ser Asp Leu Ala Leu Gly Met Leu Ala Gly

<sup>&</sup>lt;211> 254

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (244)

<sup>&</sup>lt;223> Xaa equals any of the naturally occurring L-amino acids

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (248)

<sup>&</sup>lt;223> Xaa equals any of the naturally occurring L-amino acids

225 230 235 240

Ala Ala Thr Xaa Met Ala Leu Xaa Ser Leu Phe Trp Val Phe 245 250

<210> 98

<211> 705

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (290)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 98

Met Ala Met Glu Lys Ser Lys Ala Thr Pro Ala Ala Arg Ala Ser Lys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Lys Ile Leu Leu Pro Glu Pro Ser Ile Arg Xaa Val Met Gln Lys Tyr 20 25 30

Leu Glu Asp Arg Gly Glu Val Thr Phe Glu Lys Ile Phe Ser Gln Lys 35 40 45

Leu Gly Tyr Leu Leu Phe Arg Asp Phe Cys Leu Asn His Leu Glu Glu 50 55 60

Ala Arg Pro Leu Val Glu Phe Tyr Glu Glu Ile Lys Lys Tyr Glu Lys 65 70 75 80

Leu Glu Thr Glu Glu Glu Arg Val Ala Arg Ser Arg Glu Ile Phe Asp 85 90 95

Ser Tyr Ile Met Lys Glu Leu Leu Ala Cys Ser His Pro Phe Ser Lys 100 105 110

Ser Ala Thr Glu His Val Gln Gly His Leu Gly Lys Lys Gln Val Pro 115 120 125

Pro Asp Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Gln Asn Leu Arg 130 135 140

Gly Asp Val Phe Gln Lys Phe Ile Glu Ser Asp Lys Phe Thr Arg Phe 145 150 155 160

Cys Gln Trp Lys Asn Val Glu Leu Asn Ile His Leu Thr Met Asn Asp 165 170 175

Phe Ser Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr 180 185 190

Gly Cys Arg Lys Ala Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu 195 200 205

Asp Lys Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn 210 215 220

Glu Arg Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe Ile 225 230 235 240 Val Cys Met Ser Tyr Ala Phe His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His 265 Gly Val Phe Ser Glu Ala Asp Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Xaa Leu Glu His Met His Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Pro Ala Asn Ile Leu Leu Asp Glu His Gly His Val Arg Ile Ser 310 Asp Leu Gly Leu Ala Cys Asp Phe Ser Lys Lys Pro His Ala Ser Val Gly Thr Gln Gly Tyr Met Ala Pro Glu Val Leu Gln Lys Gly Val Ala Tyr Asp Ser Ser Ala Asp Trp Phe Ser Leu Gly Cys Met Leu Phe Lys Leu Leu Arg Gly His Ser Pro Phe Arg Gln His Lys Thr Lys Asp Lys His Glu Ile Asp Arg Met Thr Leu Thr Met Ala Val Glu Leu Pro Asp Ser Phe Ser Pro Glu Leu Arg Ser Leu Leu Glu Gly Leu Leu Gln Arg Asp Val Asn Arg Arg Leu Gly Cys Leu Gly Arg Gly Ala Gln Glu Val Lys Glu Ser Pro Phe Phe Arg Ser Leu Asp Trp Gln Met Val Phe Leu Gln Lys Tyr Pro Pro Pro Leu Ile Pro Pro Arg Gly Glu Val Asn Ala Ala Asp Ala Phe Asp Ile Gly Ser Phe Asp Glu Glu Asp Thr Lys 470 Gly Ile Lys Leu Leu Asp Ser Asp Gln Glu Leu Tyr Arg Asn Phe Pro Leu Thr Ile Ser Glu Arg Trp Gln Gln Glu Val Ala Glu Thr Val Phe 505 Asp Thr Ile Asn Ala Glu Thr Asp Arg Leu Glu Ala Arg Lys Lys Ala 520 Lys Asn Lys Gln Leu Gly His Glu Glu Asp Tyr Ala Leu Gly Lys Asp Cys Ile Met His Gly Tyr Met Ser Lys Met Gly Asn Pro Phe Leu Thr Gln Trp Gln Arg Arg Tyr Phe Tyr Leu Phe Pro Asn Arg Leu Glu Trp Arg Gly Glu Gly Glu Ala Pro Gln Ser Leu Leu Thr Met Glu Glu Ile

585

```
Gln Ser Val Glu Glu Thr Gln Ile Lys Glu Arg Lys Cys Leu Leu
                            600
Lys Ile Arg Gly Gly Lys Gln Phe Ile Leu Gln Cys Asp Ser Asp Pro
                        615
Glu Leu Val Gln Trp Lys Lys Glu Leu Arg Asp Pro Thr Ala Ser Pro
Ala Ala Gly Ala Ala Gly Ala Gln Asp Glu Glu Gln Ala Ala Leu Ala
Arg Gly Gly Ala Glu Gln Gly Ala Ala Gly Pro Ala Arg Gln Cys Gln
                                665
Arg Pro Leu Thr Arg Pro Pro Ala Phe Tyr Lys Pro Leu Ile Tyr Phe
Val Glu Phe Leu Leu Phe Val Phe Pro Pro Ser Gly Lys Gly Phe Ile
                                            700
Leu
705
<210> 99
<211> 558
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids
Asp Leu Phe Ser Asp Val Leu Glu Glu Gly Glu Leu Asp Met Glu Lys
Ser Gln Glu Glu Met Asp Gln Ala Leu Ala Glu Ser Ser Glu Glu Gln
Glu Asp Ala Leu Asn Ile Ser Ser Met Ser Leu Leu Ala Pro Leu Ala
                             40
Gln Thr Val Gly Val Val Ser Pro Glu Ser Leu Val Ser Thr Pro Arg
Leu Glu Leu Lys Asp Thr Ser Arg Ser Asp Glu Ser Pro Lys Pro Gly
Lys Phe Gln Arg Thr Arg Val Pro Arg Ala Glu Ser Gly Asp Ser Leu
Gly Ser Glu Asp Arg Asp Leu Leu Tyr Ser Ile Asp Ala Tyr Arg Ser
Gln Arg Phe Lys Glu Thr Glu Arg Pro Ser Ile Lys Xaa Val Ile Val
                            120
Arg Lys Glu Asp Val Thr Ser Lys Leu Asp Glu Lys Asn Asn Ala Phe
                        135
Pro Cys Gln Val Asn Ile Lys Gln Lys Met Gln Glu Leu Asn Asn Glu
```

150

155

Ile Asn Met Gln Gln Thr Val Ile Tyr Gln Ala Ser Gln Ala Leu Asn Cys Cys Val Asp Glu Glu His Gly Lys Gly Ser Leu Glu Glu Ala Glu 185 Ala Glu Arg Leu Leu Ile Ala Thr Gly Lys Arg Thr Leu Leu Ile Asp Glu Leu Asn Lys Leu Lys Asn Glu Gly Pro Gln Arg Lys Asn Lys Ala Ser Pro Gln Ser Glu Phe Met Pro Ser Lys Gly Ser Val Thr Leu 230 Ser Glu Ile Arg Leu Pro Leu Lys Ala Asp Phe Val Cys Ser Thr Val Gln Lys Pro Asp Ala Ala Asn Tyr Tyr Tyr Leu Ile Ile Leu Lys Ala Gly Ala Glu Asn Met Val Ala Thr Pro Leu Ala Ser Thr Ser Asn Ser 280 Leu Asn Gly Asp Ala Leu Thr Phe Thr Thr Phe Thr Leu Gln Asp 295 Val Ser Asn Asp Phe Glu Ile Asn Ile Glu Val Tyr Ser Leu Val Gln 315 Lys Lys Asp Pro Ser Gly Leu Asp Lys Lys Lys Thr Ser Lys Ser 330 Lys Ala Ile Thr Pro Lys Arg Leu Leu Thr Ser Ile Thr Thr Lys Ser Asn Ile His Ser Ser Val Met Ala Ser Pro Gly Gly Leu Ser Ala Val Arg Thr Ser Asn Phe Ala Leu Val Gly Ser Tyr Thr Leu Ser Leu Ser 375 Ser Val Gly Asn Thr Lys Phe Val Leu Asp Lys Val Pro Phe Leu Ser Ser Leu Glu Gly His Ile Tyr Leu Lys Ile Lys Cys Gln Val Asn Ser Ser Val Glu Glu Arg Gly Phe Leu Thr Ile Phe Glu Asp Val Ser Gly Phe Gly Ala Trp His Arg Arg Trp Cys Val Leu Ser Gly Asn Cys Ile Ser Tyr Trp Thr Tyr Pro Asp Asp Glu Lys Arg Lys Asn Pro Ile Gly Arg Ile Asn Leu Ala Asn Cys Thr Ser Arg Gln Ile Glu Pro Ala Asn Arg Glu Phe Cys Ala Arg Arg Asn Thr Phe Glu Leu Ile Thr Val Arg 490 Pro Gln Arg Glu Asp Asp Arg Glu Thr Leu Val Ser Gln Cys Arg Asp

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Thr Leu Cys Val Thr Lys Asn Trp Leu Ser Ala Asp Thr Lys Glu Glu
Arg Asp Leu Trp Met Gln Lys Leu Asn Gln Val Leu Val Asp Ile Arg
Leu Trp Gln Pro Asp Ala Cys Tyr Lys Pro Ile Gly Lys Pro
<210> 100
<211> 122
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 100
Cys Ser Ser Ser Glu Met Pro Tyr Val Asp Arg Gln Asn Arg Ile Cys
Gly Phe Leu Asp Ile Glu Glu Asn Glu Asn Ser Gly Lys Phe Leu Arg
Arg Tyr Phe Ile Leu Asp Thr Arg Glu Asp Ser Phe Val Trp Tyr Met
Xaa Asn Pro Gln Asn Leu Pro Ser Gly Ser Ser Arg Val Gly Ala Ile
Lys Xaa Thr Tyr Ile Ser Lys Val Ser Asp Ala Thr Lys Leu Arg Pro
Lys Xaa Glu Phe Cys Phe Val Met Asn Ala Gly Met Arg Lys Tyr Phe
Leu Gln Ala Asn Asp Pro Ala Gly Pro Ser Gly Met Gly Lys Cys Val
Lys Gln Ser Tyr Lys Asn Phe Ser Thr Lys
        115
<210> 101
<211> 348
<212> PRT
<213> Homo sapiens
Ala Asp Ala Trp Ala Asp Ala Trp Val Asn Asp Thr Val Val Pro Thr
```

Ser Pro Ser Ala Asp Ser Thr Val Leu Leu Ala Pro Ser Val Gln Asp Ser Gly Ser Leu His Asn Ser Ser Ser Gly Glu Ser Thr Tyr Cys Met Pro Gln Asn Ala Gly Asp Leu Pro Ser Pro Asp Gly Asp Tyr Asp Tyr Asp Gln Asp Asp Tyr Glu Asp Gly Ala Ile Thr Ser Gly Ser Ser Val Thr Phe Ser Asn Ser Tyr Gly Ser Gln Trp Ser Pro Asp Tyr Arg Cys Ser Val Gly Thr Tyr Asn Ser Ser Gly Ala Tyr Arg Phe Ser Ser Glu Gly Ala Gln Ser Ser Phe Glu Asp Ser Glu Glu Asp Phe Asp Ser Arg Phe Asp Thr Asp Asp Glu Leu Ser Tyr Arg Arg Asp Ser Val Tyr Ser 135 Cys Val Thr Leu Pro Tyr Phe His Ser Phe Leu Tyr Met Lys Gly Gly 155 Leu Met Asn Ser Trp Lys Arg Arg Trp Cys Val Leu Lys Asp Glu Thr Phe Leu Trp Phe Arg Ser Lys Gln Glu Ala Leu Lys Gln Gly Trp Leu 185 His Lys Lys Gly Gly Gly Ser Ser Thr Leu Ser Arg Arg Asn Trp Lys 200 Lys Arg Trp Phe Val Leu Arg Gln Ser Lys Leu Met Tyr Phe Glu Asn Asp Ser Glu Glu Lys Leu Lys Gly Thr Val Glu Val Arg Thr Ala Lys 230 235 Glu Ile Ile Asp Asn Thr Thr Lys Glu Asn Gly Ile Asp Ile Ile Met 250 245 Ala Asp Arg Thr Phe His Leu Ile Ala Glu Ser Pro Glu Asp Ala Ser Gln Trp Phe Ser Val Leu Ser Gln Val His Ala Ser Thr Asp Gln Glu 280 285 Ile Gln Glu Met His Asp Glu Gln Ala Asn Pro Gln Asn Ala Val Gly 295 Thr Leu Asp Val Gly Leu Ile Asp Ser Val Cys Ala Ser Asp Ser Pro Asp Arg Pro Asn Ser Phe Val Ile Ile Thr Ala Asn Arg Val Leu His 330 335 Cys Asn Ala Asp Thr Pro Glu Arg Cys Thr Thr Gly 340

<sup>&</sup>lt;211> 128

<212> PRT <213> Homo sapiens

<400> 102
Asp Pro Arg Val Arg Trp Ser Trp Glu Pro Phe Pro Ser Glu Gln Gln
1 5 10 15

Pro Cys Pro Ala Ser Val Leu Ser Ser Gln Gln Gly Lys Ser Ile Ser 20 25 30

Leu Ile Met Glu Glu Asn Asn Asp Ser Thr Glu Asn Pro Gln Gln Gly 35 40 45

Gln Gly Arg Gln Asn Ala Ile Lys Cys Gly Trp Leu Arg Lys Gln Gly
50 60

Gly Phe Val Lys Thr Trp His Thr Arg Trp Phe Val Leu Lys Gly Asp 65 70 75 80

Gln Leu Tyr Tyr Ser Lys Met Lys Met Lys Pro Ser Pro Trp Val Leu 85 90 95

Phe Phe Cys Leu Glu Ile Lys Phe Ser Glu His Pro Cys Asn Glu Glu 100 105 110

Asn Pro Gly Lys Phe Leu Phe Glu Val Val Pro Gly Lys Ile Phe Ser 115 120 125

<210> 103

<211> 143 <212> PRT

<213> Homo sapiens

<400> 103

His Ala Ser Asp His Leu Phe Phe Phe Ala Phe Ser Tyr Cys Trp Ser 1 10 15

Trp Glu Pro Phe Pro Ser Glu Gln Gln Pro Cys Pro Ala Ser Val Leu 20 25 30

Ser Ser Gln Gln Gly Lys Ser Ile Ser Leu Ile Met Glu Glu Asn Asn 35 40 45

Asp Ser Thr Glu Asn Pro Gln Gln Gly Gln Gly Arg Gln Asn Ala Ile 50 60

Lys Cys Gly Trp Leu Arg Lys Gln Gly Gly Phe Val Lys Thr Trp His 65 70 75 80

Thr Arg Trp Phe Val Leu Lys Gly Asp Gln Leu Tyr Tyr Phe Lys Asp 85 90 95

Glu Asp Glu Thr Lys Pro Leu Gly Thr Ile Phe Leu Pro Gly Asn Lys 100 105 110

Val Ser Glu His Pro Cys Asn Glu Glu Asn Pro Gly Lys Phe Leu Phe 115 120 125

Glu Val Val Pro Gly Arg Arg Ser Arg Ser Asp Asp Ser Lys Ser 130 140

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<210> 104
<211> 481
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (246)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (373)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (374)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (380)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (480)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 104
Gly Arg Trp Ala Ala Pro Ser Ser Arg Leu Ala Pro Gln Leu Pro Pro
Thr Thr Ala Ala Glu Arg Ser Trp Gly Leu Thr Arg Arg Leu Arg Gly
Leu Gly Pro Arg Arg Arg Gly Asp Leu Gly Gly Thr Gly Ser Leu Arg
Pro Ala Ser Leu Gly Ala Pro His Gly Ile Cys Arg Phe Thr Glu Trp
Leu His Ile Asn Gly Lys Arg Ser Ile Asn Leu Ser Ser Phe Ile Met
Glu Gly Gly Leu Ala Asp Gly Glu Pro Asp Arg Thr Ser Leu Leu Gly
Asp Ser Lys Asp Val Leu Gly Pro Ser Thr Val Val Ala Asn Ser Asp
Glu Ser Gln Leu Leu Thr Pro Gly Lys Met Ser Gln Arg Gln Gly Lys
                             120
Glu Ala Tyr Pro Thr Pro Thr Lys Asp Leu His Gln Pro Ser Leu Ser
Pro Ala Ser Pro His Ser Gln Gly Phe Glu Arg Gly Lys Glu Asp Ile
                     150
Ser Gln Asn Lys Asp Glu Ser Ser Leu Ser Met Ser Lys Ser Lys Ser
Glu Ser Lys Leu Tyr Asn Gly Ser Glu Lys Asp Ser Ser Thr Ser Ser
```

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Lys Leu Thr Lys Lys Glu Ser Leu Lys Val Gln Lys Lys Asn Tyr Arg
                                                205
Glu Glu Lys Lys Arg Ala Thr Lys Glu Leu Leu Ser Thr Ile Thr Asp
Pro Ser Val Ile Val Met Ala Asp Trp Leu Lys Ile Arg Gly Thr Leu
                    230
Lys Ser Trp Thr Lys Xaa Trp Cys Val Leu Lys Pro Gly Val Leu Leu
Ile Tyr Lys Thr Gln Lys Asn Gly Gln Trp Val Gly Thr Val Leu Leu
Asn Ala Cys Glu Ile Ile Glu Arg Pro Ser Lys Lys Asp Gly Phe Cys
                            280
Phe Lys Leu Phe His Pro Leu Glu Gln Ser Ile Trp Ala Val Lys Gly
Pro Lys Gly Glu Ala Val Gly Ser Ile Thr Gln Pro Leu Pro Ser Ser
Tyr Leu Ile Ile Arg Ala Thr Ser Glu Ser Asp Gly Arg Cys Trp Met
Asp Ala Leu Glu Leu Ala Leu Lys Cys Ser Ser Leu Leu Lys Arg Thr
Met Ile Arg Glu Gly Lys Glu His Asp Leu Ser Val Ser Ser Asp Ser
                            360
Thr His Val Thr Xaa Xaa Gly Leu Leu Arg Ala Xaa Asn Leu His Ser
                        375
Gly Asp Asn Phe Gln Leu Asn Asp Ser Glu Ile Glu Arg Gln His Phe
Lys Asp Gln Asp Met Tyr Ser Asp Lys Ser Asp Lys Glu Asn Asp Gln
Glu His Asp Glu Ser Asp Asn Glu Val Met Gly Lys Ser Glu Glu Ser
                                425
Asp Thr Asp Thr Ser Glu Arg Gln Asp Asp Ser Tyr Ile Glu Pro Glu
Pro Val Glu Pro Leu Lys Gly Asp Tyr Leu His Trp Asn Arg Ala Met
Glu Glu Leu Gly Glu Val Lys Val Cys Leu Phe Leu Glu Val Leu Xaa
                                         475
465
                    470
```

Phe

Pro Gly Ser His Thr Ile Leu Arg Arg Ser Gln Ser Tyr Ile Pro Thr

<sup>&</sup>lt;210> 105

<sup>&</sup>lt;211> 131

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;400> 105

1				5					10					15	
Ser	Gly	Cys	Arg 20	Ala	Ser	Thr	Gly	Pro 25	Pro	Leu	Ile	Lys	Ser 30	Gly	Tyr
Cys	Val	Lys 35	Gln	Gly	Asn	Val	Arg 40	Lys	Ser	Trp	Lys	Arg 45	Arg	Phe	Phe
Ala	Leu 50	Asp	Asp	Phe	Thr	Ile 55	Cys	Tyr	Phe	Lys	Cys 60	Glu	Gln	Asp	Arg
Glu 65	Pro	Leu	Arg	Thr	Ile 70	Phe	Leu	Lys	Asp	Val 75	Leu	Lys	Thr	His	Glu 80
Cys	Leu	Val	Lys	Ser 85	Gly	Asp	Leu	Leu	Met 90	Arg	Asp	Asn	Leu	Phe 95	Glu
Ile	Ile	Thr	Ser 100	Ser	Arg	Thr	Phe	Tyr 105	Val	Gln	Ala	Asp	Ser 110	Pro	Glu
Asp	Met	His 115	Ser	Trp	Ile	Lys	Glu 120	Ile	Gly	Ala	Ala	Val 125	Gln	Ala	Leu
Lys	Cys 130	His													
<210> 106 <211> 91 <212> PRT <213> Homo sapiens															
	0> 10 Asn		Leu	Thr 5	Met	Glu	Gln	Ile	Leu 10	Ser	Val	Glu	Glu	Thr 15	Gln
Ile	Lys	Asp	Lys 20	Lys	Cys	Ile	Leu	Phe 25	Arg	Ile	Lys	Gly	Gly 30	Lys	Gln
Phe	Val	Leu 35	Gln	Cys	Glu	Ser	Asp 40	Pro	Glu	Phe	Val	Gln 45	Trp	Lys	Lys
Glu	Leu 50	Asn	Glu	Thr	Phe	Lys 55		Ala	Gln	Arg	Leu 60	Leu	Arg	Arg	Ala
Pro 65		Phe			Lys 70		Arg	Ser	Gly	Thr 75	Val	Glu	Leu	Pro	Lys 80
Pro	Ser	Leu	Cys	His 85	Arg	Asn	Ser	Asn	Gly 90	Leu					
<210> 107 <211> 123 <212> PRT <213> Homo sapiens															
<22	1> S 2> (	103)	qua1	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<22	1> S 2> (	113)	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds

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<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Val Tyr Met Ala Thr Phe Tyr Glu Phe Phe Asn Glu Gln Lys Tyr
Ala Asp Ala Val Lys Asn Phe Leu Asp Leu Ile Ser Ser Ser Gly Arg
Arg Asp Pro Lys Ser Val Glu Gln Pro Ile Val Leu Lys Glu Gly Phe
Met Ile Lys Arg Ala Gln Gly Arg Lys Arg Phe Gly Met Lys Asn Phe
Lys Lys Arg Trp Phe Arg Leu Thr Asn His Gly Ile Tyr Leu Pro Gln
Lys Gln Arg Gly Pro Ala Ser Leu Gln His Ser His Arg Gly Thr Ser
Trp Ala Val Glu Glu Ala Xaa Gly Gly Ser Val Phe Lys Met Glu Lys
Xaa Val Ser Arg Xaa Ile Pro Val Gln Ser Val
                            120
<210> 108
<211> 155
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (140)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 108
Arg Trp Ala Ala Val Pro Cys Arg Arg Ala Leu Leu Leu Cys Asn Gly
Met Arg Tyr Lys Leu Leu Gln Glu Gly Asp Ile Gln Val Cys Val Ile
Arg His Pro Arg Thr Phe Leu Ser Lys Ile Leu Thr Ser Lys Phe Leu
Arg Arg Trp Glu Pro His His Leu Thr Leu Ala Asp Asn Ser Leu Ala
Ser Ala Thr Pro Thr Gly Tyr Met Glu Asn Ser Val Ser Tyr Ser Ala
Ile Glu Asp Val Gln Leu Leu Ser Trp Glu Asn Ala Pro Lys Tyr Cys 85 90 95
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Leu Gln Leu Thr Ile Pro Gly Gly Thr Val Leu Leu Gln Ala As<br/>n 100 105 110

Ser Tyr Leu Arg Asp Gln Trp Phe His Ser Leu Gln Trp Lys Lys 115 120 125

Ile Tyr Lys Tyr Lys Lys Val Leu Ser Asn Pro Xaa Arg Trp Glu Xaa 130 135 140

Val Leu Lys Glu Ile Arg Thr Leu Val Asp Ile 145 150 155

<210> 109

<211> 119

<212> PRT

<213> Homo sapiens

<400> 109

Leu Tyr Gly Cys Glu Lys Thr Thr Glu Gly Asp Glu Asn Arg Ser Phe 1 5 10 15

Glu Gly Thr Leu Tyr Lys Arg Gly Ala Leu Leu Lys Gly Trp Lys Pro 20 25 30

Arg Trp Phe Val Leu Asp Val Thr Lys His Gln Leu Arg Tyr Tyr Asp 45

Ser Gly Glu Asp Thr Ser Cys Lys Gly His Ile Asp Leu Ala Glu Val 50 60

Glu Met Val Ile Pro Ala Gly Pro Ser Met Gly Ala Pro Lys His Thr 65 70 75 80

Ser Asp Lys Ala Phe Phe Asp Leu Lys Thr Ser Lys Arg Val Tyr Asn 85 90 95

Phe Cys Ala Gln Asp Gly Gln Ser Ala Gln Gln Trp Met Asp Lys Ile 100 105 110

Gln Ser Cys Ile Ser Asp Ala 115

<210> 110

<211> 455

<212> PRT

<213> Homo sapiens

<400> 110

His Arg Thr Lys Gly Arg Val Phe Ser Ala Leu Arg Thr Gly Ala Glu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Glu Ala Ala Val Ala Pro Gly Ala Phe Glu Arg Ala His Pro Ser Pro 20 25 30

Arg Ala As<br/>n Ala Asp Pro Gly Pro Thr Gly Gly Thr Ala Pro Asp Ser<br/> 35 40 45

Pro Arg Ala Phe Leu Ala Ala Met Glu Asp Gly Val Tyr Glu Pro Pro 50 60

Asp Leu Thr Pro Glu Glu Arg Met Glu Leu Glu Asn Ile Arg Arg Arg 65 70 75 80

Lys Gln Glu Leu Leu Val Glu Ile Gln Arg Leu Arg Glu Glu Leu Ser

85 95 Glu Ala Met Ser Glu Val Glu Gly Leu Glu Ala Asn Glu Gly Ser Lys 105 Thr Leu Gln Arg Asn Arg Lys Met Ala Met Gly Arg Lys Lys Phe Asn 120 Met Asp Pro Lys Lys Gly Ile Gln Phe Leu Val Glu Asn Glu Leu Leu Gln Asn Thr Pro Glu Glu Ile Ala Arg Phe Leu Tyr Lys Gly Glu Gly Leu Asn Lys Thr Ala Ile Gly Asp Tyr Leu Gly Glu Arg Glu Glu Leu Asn Leu Ala Val Leu His Ala Phe Val Asp Leu His Glu Phe Thr Asp 185 Leu Asn Leu Val Gln Ala Leu Arg Gln Phe Leu Trp Ser Phe Arg Leu Pro Gly Glu Ala Gln Lys Ile Asp Arg Met Met Glu Ala Phe Ala Gln 215 Arg Tyr Cys Leu Cys Asn Pro Gly Val Phe Gln Ser Thr Asp Thr Cys Tyr Val Leu Ser Phe Ala Val Ile Met Leu Asn Thr Ser Leu His Asn 250 Pro Asn Val Arg Asp Lys Pro Gly Leu Glu Arg Phe Val Ala Met Asn Arg Gly Ile Asn Glu Gly Gly Asp Leu Pro Glu Glu Leu Leu Arg Asn 280 Leu Tyr Asp Ser Ile Arg Asn Glu Pro Phe Lys Ile Pro Glu Asp Asp Gly Asn Asp Leu Thr His Thr Phe Phe Asn Pro Asp Arg Glu Gly Trp 310 Leu Leu Lys Leu Gly Gly Gly Arg Val Lys Thr Trp Lys Arg Arg Trp Phe Ile Leu Thr Asp Asn Cys Leu Tyr Tyr Phe Glu Tyr Thr Thr Asp Lys Glu Pro Arg Gly Ile Ile Pro Leu Glu Asn Leu Ser Ile Arg Glu Val Asp Asp Pro Arg Lys Pro Asn Cys Phe Glu Leu Tyr Ile Pro Asn Asn Lys Gly Gln Leu Ile Lys Ala Cys Lys Thr Glu Ala Asp Gly Arg 390 395 Val Val Glu Gly Asn His Met Val Tyr Arg Ile Ser Ala Pro Thr Gln Glu Glu Lys Asp Glu Trp Ile Lys Ser Ile Gln Ala Ala Val Ser Val Asp Pro Phe Tyr Glu Met Leu Ala Ala Arg Lys Lys Arg Ile Ser Val

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445
        435
                            440
Lys Lys Gln Glu Gln Pro
    450
<210> 111
<211> 87
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 111
Lys Arg Arg Pro Thr Ala Thr Ser Ala Cys Arg Gly Gly Pro Ala Ala
Glu Arg Ser Cys Leu Arg Val Thr Phe Ala Ser Ala Cys Pro Ala Ser
Met Glu Pro Lys Arg Ile Arg Glu Gly Tyr Leu Val Lys Lys Gly Ser
Val Phe Asn Thr Trp Lys Pro Met Trp Val Val Leu Leu Glu Asp Gly
Ile Glu Phe Tyr Lys Xaa Xaa Ser Asp Asn Ser Pro Lys Gly Met Xaa
 65
Pro Leu Lys Gly Ser Thr Leu
<210> 112
<211> 592
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (591)
<223> Xaa equals any of the naturally occurring L-amino acids
Gln Glu Cys Arg Gly Ile Arg Ala Ala Ser Ala Ser Ala Gln Glu Leu
Ala Thr Ser Leu Lys Thr Glu Gly Thr Val Gly Gly Gly Thr Val Gly
Gln Cys Gly Thr Tyr Leu Ser Pro Leu Trp Arg Gly Xaa Thr Arg Glu
Arg Ala Pro Xaa Gly Thr Glu Met Gln Asp Arg Leu His Ile Leu Glu
Asp Leu Asn Met Leu Tyr Ile Arg Gln Met Ala Leu Ser Asp Leu Pro
 65
Glu Asp Thr Glu Leu Gln Arg Lys Leu Asp His Glu Ile Arg Met Xaa
Glu Gly Ala Cys Lys Leu Leu Ala Xaa Cys Ser Gln Arg Glu Gln Ala
Leu Glu Ala Thr Lys Ser Leu Leu Val Cys Asn Ser Arg Ile Leu Ser
                            120
Tyr Met Gly Glu Leu Gln Arg Arg Lys Glu Ala Gln Val Leu Gly Lys
Thr Ser Arg Arg Pro Ser Asp Ser Gly Pro Pro Ala Glu Arg Ser Pro
                    150
Cys Arg Gly Arg Val Cys Ile Ser Asp Leu Arg Ile Pro Leu Met Trp
Lys Asp Thr Glu Tyr Phe Lys Asn Lys Gly Asp Leu His Arg Trp Ala
                                185
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Val Phe Leu Leu Gln Leu Gly Glu His Ile Gln Asp Thr Glu Met 205 Ile Leu Val Asp Arg Thr Leu Thr Asp Ile Ser Phe Gln Ser Asn Val Leu Phe Ala Glu Ala Gly Pro Asp Phe Glu Leu Arg Leu Glu Leu Tyr 235 Gly Ala Cys Val Glu Glu Gly Ala Leu Thr Gly Gly Pro Lys Arg Leu Ala Thr Lys Leu Ser Ser Ser Leu Gly Arg Ser Ser Gly Arg Arg Val Arg Ala Ser Leu Asp Ser Ala Gly Gly Ser Gly Ser Ser Pro Ile 280 Leu Leu Pro Thr Pro Val Val Xaa Gly Pro Arg Tyr His Leu Leu Ala His Xaa Thr Leu Thr Leu Ala Ala Xaa Gln Asp Gly Phe Arg Thr His 310 Asp Leu Thr Leu Ala Ser His Glu Glu Asn Pro Ala Trp Leu Pro Leu 330 Tyr Gly Ser Val Cys Cys Arg Leu Ala Ala Gln Pro Leu Cys Met Thr Gln Pro Thr Ala Ser Gly Thr Leu Arg Val Gln Gln Ala Gly Glu Met Gln Asn Trp Ala Gln Val His Gly Val Leu Lys Gly Thr Asn Leu Phe 375 Cys Tyr Arg Gln Pro Glu Asp Ala Asp Thr Gly Glu Glu Pro Leu Leu 390 Thr Ile Ala Val Asn Lys Glu Thr Arg Val Arg Ala Gly Glu Leu Asp 410 Gln Ala Leu Gly Arg Pro Phe Thr Leu Ser Ile Ser Asn Gln Tyr Gly 425 Asp Asp Glu Val Thr His Thr Leu Gln Thr Glu Ser Arg Glu Ala Leu Gln Ser Trp Met Glu Ala Leu Trp Gln Leu Phe Phe Asp Met Ser Gln 455 Trp Lys Gln Cys Cys Asp Glu Ile Met Lys Ile Glu Thr Pro Ala Pro 475 470 Arg Lys Pro Pro Gln Ala Leu Ala Lys Gln Gly Ser Leu Tyr His Glu 490 Met Ala Ile Glu Pro Leu Asp Asp Ile Ala Ala Val Thr Asp Ile Leu 505 500 Thr Gln Arg Arg Ala Gln Gly Trp Arg His Pro His Pro Gly Trp Gln Cys Leu Gln Thr Ser Leu Pro Cys Leu Thr Pro Ala Arg Leu Pro Gln 535 540

<220> <221> SITE <222> (80)

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Trp Pro Gln Pro Gln Thr Gly Pro Thr Pro Cys Pro Gly Gly Asp Pro
                                        555
                    550
Glu Pro Phe Pro Trp Met Leu Ser Pro Gln Thr Thr Pro Leu Gly Leu
                                    570
                565
Ala Arg Leu Pro Pro Ser His Leu Ser Asp Pro His Xaa Pro Xaa Ala
                                585
                                                     590
<210> 113
<211> 55
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 113
Gln Ser Gly Thr Ser Lys Asp Glu Asn Ser Ile Ile Phe Ala Ala Lys
Ser Ala Glu Glu Lys Asn Asn Trp Met Ala Ala Leu Ile Ser Leu His
Tyr Arg Ser Thr Leu Asp Arg Met Leu Asp Ser Val Leu Leu Lys Glu
Glu Asn Xaa Ala Thr Thr Glu
<210> 114
<211> 213
<212> PRT
<213> Homo sapiens
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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 114

Tyr Xaa Arg Ile Asp Trp Pro Asn Xaa Leu Val Phe Ile Val Lys Thr 1 5 10

Xaa Ser Arg Thr Phe Tyr Leu Val Ala Lys Thr Glu Gln Glu Met Gln 20 25 30

Val Trp Val His Ser Ile Ser Gln Val Cys Asn Leu Gly His Leu Glu 35 40 45

Asp Gly Ala Asp Ser Met Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu 50 60

Gln Pro Ser Ser Ala Ser Ser Leu Leu Thr Ala His Ala Ala Xaa Xaa 65 70 75 80

Ser Leu Pro Arg Asp Xaa Pro Asn Thr Asn Ala Val Ala Thr Glu Glu
85 90 95

Thr Arg Ser Glu Ser Glu Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu 100 105 110

Ser Asn Cys Glu Thr Gly Arg Leu His His Thr Ser Leu Pro Thr Arg 115 120 125

Cys Asp Ser Trp Ser Asn Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe 130 135 140

Asp Asp Val Phe Val Asp Cys Leu Gln Pro Leu Pro Ser Ser His Leu 145 150 155 160

Val His Pro Ser Cys His Gly Ser Gly Ala Gln Glu Val Pro Ser Ser 165 170 175

Arg Pro Gln Ala Ala Leu Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro 180 185 190

Arg Gly Pro Leu Val Phe Phe Thr Ile Ala Gly Lys Phe Leu Lys Phe 195 200 205

His His Ser Gly Arg 210

<210> 115

<211> 153

<212> PRT

<213> Homo sapiens

<400> 115

Leu Thr Ser Gly Phe Leu Ser Gly Tyr Gly Ile Ser Val Trp Val Ile  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ser Trp Gln Arg Gly Ala Gly Ser Met Gly Gly Lys Lys Gly Ala Gly
20 25 30

Arg Gly Trp Leu Gln Gly Gly Gly Arg Val Arg Glu Ala Leu His Gly 35 40 45

Val His Pro His Leu His Phe Leu Leu Ser Phe Gly His Gln Val Glu 65 70 75 80

Cys Thr Gly Ser Ser Leu Asp Asn Glu His Glu Ile Ile Leu Lys Phe 85 90 95

Leu Pro Asn Lys Ala Gly Ala His Met Leu Pro His Cys Thr Leu Ala 100 105 110

Glu Val Tyr His Pro Asp Gly Leu Ala Gly Val Leu Val Pro Val Val 115 120 125

Leu Gln Asp Ile Gly Val Ala Ala His Ala Ala Ser Pro Glu Asp Lys 130 135 140

Pro Ala Leu Ala Pro Gly Val Ala Leu 145 150

<210> 116

<211> 321

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (271)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (285)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 116

Val Lys Val Arg Leu Ile Glu Asp Arg Val Leu Pro Ser Gln Cys Tyr 1 5 10

Gln Pro Leu Met Glu Leu Met Glu Ser Val Gln Gly Pro Ala Glu 20 25 30

Glu Asp Thr Ala Ser Pro Leu Ala Leu Leu Glu Glu Leu Thr Leu Gly 35 40 45

Asp Cys Arg Gln Asp Leu Ala Thr Lys Leu Val Lys Leu Phe Leu Gly 50 60

Arg Gly Leu Ala Gly Arg Phe Leu Asp Tyr Leu Thr Arg Arg Glu Val 65 70 75 80

Ala Arg Thr Met Asp Pro Asn Thr Leu Phe Arg Ser Asn Ser Leu Ala 85 90 95

Ser Lys Ser Met Glu Gln Phe Met Lys Leu Val Gly Met Pro Tyr Leu 100 105 110

His Glu Val Leu Lys Pro Val Ile Ser Arg Val Phe Glu Glu Lys Lys  $115 \hspace{1.5cm} 120 \hspace{1.5cm} 125$ 

Tyr Met Glu Leu Asp Pro Cys Lys Met Asp Leu Gly Pro His Pro Glu 130 135 140

Asp Leu Leu Gln Arg Arg Thr Leu Gly Gly Ala Asp Ala Gly Asp Gln

145 150 155 Pro Gly Ala Ala Asp Gly Leu Leu Gly Pro Ile Val Asp Ala Ile Val 170 Gly Ser Val Gly Arg Cys Pro Pro Ala Met Arg Leu Ala Phe Lys Gln 185 Leu His Arg Arg Val Glu Glu Arg Phe Pro Gln Ala Glu His Gln Asp 200 Val Lys Tyr Leu Ala Ile Ser Gly Phe Leu Phe Leu Arg Phe Phe Ala Pro Ala Ile Leu Thr Pro Lys Leu Phe Asp Leu Arg Asp Gln His Ala 235 Asp Pro Gln Thr Ser Arg Ser Leu Leu Leu Leu Ala Lys Met Cys His 250 Ser Ile Pro Val Ser His Ile Arg Ala Val Glu Arg Val Asp Xaa Gly Ala Phe Gln Leu Pro His Val Met Gln Val Val Thr Xaa Asp Gly Thr 280 Gly Ala Leu His Thr Thr Tyr Leu Gln Cys Lys Asn Val Asn Glu Leu 295 Asn Gln Trp Leu Ser Ala Leu Arg Lys Ala Ser Ala Pro Asn Pro Asn Leu <210> 117 <211> 117 <212> PRT <213> Homo sapiens <400> 117 Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu

Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe

Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr

Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile 100 105 110

Ser Gln Val Cys Asn 115

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TICATACE TOCK
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<210> 118
<211> 15
<212> PRT
<213> Homo sapiens
<400> 118
Ser Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser
<210> 119
<211> 13
<212> PRT
<213> Homo sapiens
<400> 119
Pro Cys Arg Phe Ser Pro Met Tyr Pro Thr Ala Ser Ala
<210> 120
<211> 13
<212> PRT
<213> Homo sapiens
<400> 120
Ser Tyr Val Pro Met Ser Pro Gln Ala Gly Ala Ser Gly
<210> 121
<211> 13
<212> PRT
<213> Homo sapiens
<400> 121
Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala Asn Leu
<210> 122
<211> 14
<212> PRT
<213> Homo sapiens
Lys Phe Ser Leu Asp Tyr Leu Ala Leu Asp Phe Asn Ser Ala
<210> 123
<211> 12
<212> PRT
<213> Homo sapiens
<400> 123
Arg Val Asp Tyr Val Gln Val Asp Glu Gln Lys Thr
<210> 124
<211> 12
<212> PRT
<213> Homo sapiens
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Ser Pro Asp Asp Tyr Ile Pro Met Asn Ser Gly Ser
1 5 10
<210> 125
<211> 11
<212> PRT
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<400> 125
Ser Tyr Ile Glu Met Glu Glu His Arg Thr Ala
<210> 126
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acgtggatcc ccgagagtct ctctcacatg
<210> 127
<211> 34
<212> DNA
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<400> 127
                                                                                  34
atatatatat ctcgaggggt gaagctgtgg gata
<210> 128
<211> 20
<212> DNA
<213> Homo sapiens
<400> 128
                                                                                   20
cccatcacca tcttccagga
<210> 129
<211> 20
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<400> 129
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ggggccatcc acagtcttct
<210> 130
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<400> 130
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 gccaggatga gcactggtga cact
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<211> 25 <212> DNA <213> Homo sapiens	
<400> 131 cactttggat tgcctctcat cagtc	25
<210> 132 <211> 33 <212> DNA <213> Homo sapiens	
<400> 132 acgtggatcc ccaatagaga aatcaatggc cca	33
<210> 133 <211> 30 <212> DNA <213> Homo sapiens	
<400> 133 acgtggatcc cctggttaga gatgtgtgtt	30
<210> 134 <211> 33 <212> DNA <213> Homo sapiens	
<400> 134 tgtgtggatc cccgtgccca tgagccctaa agg	33
<210> 135 <211> 32 <212> DNA <213> Homo sapiens	
<400> 135 tgtgtgaatt cggtggaaag gtttctcgag tc	32
<210> 136 <211> 27 <212> DNA <213> Homo sapiens	
<400> 136 gcggcaagct ttttgcaaag cctaggc	27
<210> 137 <211> 132 <212> PRT <213> Homo sapiens	
<400> 137 Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro	

1				5					10					15	
Pro	Glu	Arg	Lys 20	Leu	Gln	Arg	Tyr	Ala 25	Trp	Arg	Lys	Arg	Trp 30	Phe	Val
Leu	Arg	Arg 35	Gly	Arg	Met	Ser	Gly 40	Asn	Pro	Asp	Val	Leu 45	Glu	Tyr	Tyr
Arg	Asn 50	Lys	His	Ser	Ser	Lys 55	Pro	Ile	Arg	Val	Ile 60	Asp	Leu	Ser	Glu
Cys 65	Ala	Val	Trp	Lys	His 70	Val	Gly	Pro	Ser	Phe 75	Val	Arg	Lys	Glu	Phe 80
Gln	Asn	Asn	Phe	Val 85	Phe	Ile	Val	Lys	Thr 90	Thr	Ser	Arg	Thr	Phe 95	Tyr
Leu	Val	Ala	Lys 100	Thr	Glu	Gln	Glu	Met 105	Gln	Val	Trp	Val	His 110	Ser	Ile
Ser	Gln	Val 115	Cys	Asn	Leu	Gly	His 120	Leu	Glu	Asp	Gly	Ala 125	Asp	Ser	Met
Glu	Ser 130	Leu	Ser												
<210> 138 <211> 31 <212> PRT <213> Homo sapiens															
	0> 13 Pro		Pro	Glu 5	Leu	Pro	Ala	Asn	Leu 10	Glu	Pro	Pro	Pro	Val 15	Asn
Arg	Asp	Leu	Lys 20	Pro	Gln	Arg	Lys	Ser 25	Arg	Pro	Pro	Pro	Leu 30	Asp	
<210> 139 <211> 62 <212> PRT <213> Homo sapiens															
	0> 1: Thr		Lys	Phe 5	Ser	Leu	Asp	Tyr	Leu 10	Ala	Leu	Asp	Phe	Asn 15	Ser
Ala	Ser	Pro	Ala 20	Pro	Met	Gln	Gln	Lys 25	Leu	Leu	Leu	Ser	Glu 30	Glu	Gln
Arg	Val	Asp 35	Tyr	Val	Gln	Val	Asp 40	Glu	Gln	Lys	Thr	Gln 45	Ala	Leu	Gln
Ser	Thr 50	Lys	Gln	Glu	Trp	Thr 55	Asp	Glu	Arg	Gln	Ser 60	Lys	Val		